Utah Department of Transportation Sign Manual

Prepared For:



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PART 1 INTRODUCTION

Overview and Purpose

The Utah Department of Transportation Sign Manual (UDOT Sign Manual, or "Manual") establishes the basic guidelines for the design of highway signing on the Utah State Highway System.

The Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) and the UDOT 06C Policies (06C), 07 Policies (07), and 08 Policies (08) provide guidance so highway signing can be designed in a uniform manner. However, 06C, 07, and 08 Policies promote consistency for those areas not covered in the MUTCD.

Department staff often makes decisions on the best design, layout and placement of highway signs, leading to signing variations.

The primary objectives of this Manual are to:

- Provide Department staff and design consultants with information that will improve consistency and effectiveness of highway signing design; and
- Reference additional applicable design policies.
- Address sign designs that are not addressed in the MUTCD or other Department policies or documents.

Manual Information

Status of Manual

This Manual presents information as guidance for use by design personnel and is based on the standards, specifications, or regulations otherwise established by the Department and the Utah Transportation Commission.

The Department will update this manual to reflect modifications and changes related to sign design.

Application of Manual Guidelines

This Manual is intended to assist designers in the design of highway signing but it does not establish criteria or warrants for the use of any sign shown in the Manual.

Manual Content

This Manual describes various aspects of highway signing, with an emphasis on general sign design principles and standards.

Part 1 describes the purposes and functions of the Manual, its relationship to other highway sign documents and general policies and procedures that apply to the design of highway signs.

Part 2 serves as a quick reference to key sign design principles found in the MUTCD. It highlights what the Department sees as frequently misunderstood or misapplied principles from the MUTCD. It also emphasizes Department specific applications.

Part 3 contains illustrations of the various sign designs. Each illustration provides information related to sign sizes, colors, and legend.

Relationship to Other Documents

References to Other Documents

This Manual combines information contained in numerous other documents to assist in the design of highway signing. Where appropriate, information from other documents is repeated in this Manual with appropriate citations to the source of the information. In other cases, this Manual refers the user to a specific document for guidance on sign design issues. The user should check to make sure that cited source documents are current when information from other documents is repeated in the Manual.

Precedence over Other Documents

In some cases, the information presented in this Manual exceeds what is presented in the MUTCD or other Department documents. In situations where there are conflicts between other Department documents and this Manual, this Manual takes precedence.

The following documents also contain information related to the application, design, placement, installation, and maintenance of highway signing.

MUTCD

The MUTCD establishes practices for the selection, design, and placement of traffic control devices. The MUTCD has been adopted in Utah Code 41-6a-301 and establishes the legal minimum requirements for the selection, application, design, installation, and maintenance of traffic control devices. Many of the figures in this Manual contain cross-references to the MUTCD to identify the need or application of a specific sign. The user should refer to the indicated chapter of the MUTCD to determine the appropriate application of or need for the sign when a figure contains a cross-reference to the MUTCD. The official and most current version of the MUTCD is available on-line at http://mutcd.fhwa.dot.gov.

UDOT 06C, 07, and 08 Policies

The 06C, 07, and 08 Policies contain additional guidance related to the design, placement, and mounting of highway guide signs. Where appropriate, sections and figures in this Manual reference these policies.

Table 1-1 presents Department Policies that are pertinent to highway sign design:

TABLE 1-1 UDOT 06C, 07, and 08 Policies Related to Highway Signing					
Number	Policy Name				
06C-03	Street Name Signs				
06C-06	Highway Lighting				
06C-10	Policy for Roadside Memorials				
06C-11	Airport Trailblazing Signing				
06C-12 Use of Off-Highway Vehicles on S Routes					
06C-13	City and Municipal Boundary Signs				
06C-14	Logo Signing on Highways				
06C-21	Sign Management System				
06C-24	Engine Brake Restriction Signing				
06C-30	Recreational And Cultural Interest Signing, Guide Signing For Recreational Information Centers, And Camping Signs On Highways Other Than Freeways				
06C-31	Supplemental Signs and Service Signs				
06C-32	Off-Interstate Business Loops And Spurs				
06C-33	Distance Signs on the Interstate System				
06C-34	Signing of Rest Areas, Rest Stops, And Tourist Information Centers				
06C-37	Placement of Monument or Gateway Features on State Highways				
06C-XX	Stop Signs (Future)				
07-20	Highway Linear Referencing				
08A3-4	Design and Selection of Off-Highway Directional Signs				
08A-10	Construction and Maintenance of Right- of-Way Fence (Future)				

Contact the UDOT Project Manager to obtain copies of Department policies.

Standard Highway Signs Book

The Federal Highway Administration *Standard Highway Signs and Markings (SHS)* book presents detailed drawings of the Standard Highway Signs prescribed in the MUTCD. The SHS should be used to determine the design and layout of standard signs. The SHS is available on-line at: http://mutcd.fhwa.dot.gov/ser-shs_millennium.htm.

Approval Authority and Process

UDOT Policy 06C-21 – Sign Management System, outlines the Department's program to ensure that all sign installations on the Utah State Highway System conform to the most recent edition of MUTCD and any applicable standard drawings.

The policy states that all new and replacement permanent sign installations on the Utah State Highway System shall be reviewed and approved by the Region Traffic Engineer or their designee, *except* for all new and replacement permanent sign installations on freeways, grade separated expressways and parkways, and other facilities that are constructed to freeway standards. Signs on these facilities shall be reviewed and approved by the Traffic and Safety Division for message, location, and design layout.

Plans for signing should be analyzed and coordinated with the Department during the earliest stages of preliminary design, with details being correlated as final design is developed.

GENERAL DESIGN PRINCIPLES PART 2

Design Guidelines

General

Function and Purpose of Signs¹

Because the requirements and standards for signs depend on the particular type of highway upon which they are to be used, the following definitions shall apply:

- Freeway a divided highway with full control of access.
- Expressway a divided highway with partial control of access.
- Conventional Road a street or highway other than a low-volume road, a freeway, or an expressway. A low-volume road shall be defined as follows²:
 - A low-volume road shall be a facility lying outside of built-up areas of Cities, towns, and communities, and it shall have a traffic volume of less than 400 AADT.
 - A low-volume road shall not be a freeway, expressway, interchange ramp, freeway service road, or a road on a designated State highway system. In terms of highway classification, it shall be a variation of a conventional road or a special purpose road as defined in Section 2A.01.
 - A low-volume road shall be classified as either paved or unpaved.
- Special Purpose Road a low-volume, low-speed road that swerves recreational areas or resource development activities, or that provides local access.

Parkways will be signed according to the above definitions.

Standardization of Application³

Signs should be used only where justified by engineering judgment or studies, as noted in MUTCD Section 1A.09.

Results from traffic engineering studies of physical and traffic factors should indicate the locations where signs are deemed necessary or desirable.

Roadway geometric design and sign application should be coordinated so that signing can be effectively placed to give the road user any necessary regulatory, warning, guidance, and other information.

Each standard sign shall be displayed only for the specific purpose as prescribed in the MUTCD and this Manual.

Determination of the particular signs to be applied to a specific condition shall be made in accordance with the criteria set forth in MUTCD Part 2.

¹ See also <u>MUTCD Section 2A.01</u>

² See MUTCD Section 5A.01
³ See also MUTCD Section 2A.03

Before any new highway, detour, or temporary route is opened to traffic, all necessary signs shall be in place.

Signs required by road conditions or restrictions shall be removed when those conditions cease to exist or the restrictions are withdrawn.

Excessive Use of Signs⁴

Regulatory and warning signs should be used conservatively because these signs, if used to excess, tend to lose their effectiveness.

If used, route signs and directional signs should be used frequently because they promote safe and efficient operations by keeping road users informed of their location.

Classification of Signs⁵

Signs are classified and defined by their function as follows:

- egulatory Signs give notice of traffic laws or regulations.
- arning Signs give notice of a situation that might not be readily apparent
- uide Signs show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, or cultural information.

Most of the general highway sign design guidelines are included in the MUTCD, while others are derived from accepted practice and are considered common knowledge.

Design of Signs⁶

In the specifications for individual signs, the general appearance of the legend, color, and size are shown in the accompanying tables and illustrations, and are not always detailed in the text.

Detailed drawings of standard signs and alphabets are shown in the SHS.

The basic requirements of a highway sign are that it be legible to those for whom it is intended and that it be understandable in time to permit a proper response. Desirable attributes include:

- High visibility by day and night.
- High legibility (adequately sized letters or symbols, and a short legend for quick comprehension by a road user approaching a sign).

Standardized colors and shapes are specified so that the several classes of traffic signs can be promptly recognized. Simplicity and uniformity in design, position, and application are important.

The term legend shall include all word messages and symbol designs that are intended to convey specific meanings.

See also MUTCD Section 2A.04
 See also MUTCD Section 2A.05
 See also MUTCD Section 2A.06

Uniformity in design shall include shape, color, dimensions, legends, borders, and illumination or retroreflectivity.

Where a standard word message is applicable, the wording shall be as provided in the MUTCD.

Standardization of designs does not preclude further improvement by minor changes in the proportion or orientation of symbols, width of borders, or layout of word messages, but all shapes and colors shall be as indicated.

In situations where word messages are required other than those provided in the MUTCD. the signs shall be of the same shape and color as standard signs of the same functional type.

Internet addresses shall not be shown on any sign, supplemental plague, sign panel (including logo panels on specific service signs), or changeable message sign, except:

Internet addresses or phone numbers with more than four characters may be shown on signs, supplemental plagues, sign panels, and changeable message signs that are intended for viewing only by pedestrians, bicyclists, occupants of parked vehicles, or drivers of vehicles on low-speed roadways where engineering judgment indicates that drivers can reasonably safely stop out of the traffic flow to read the message.

Retroreflectivity and Illumination⁷

Regulatory, warning, and guide signs shall be retroreflective or illuminated to show the same shape and similar color by both day and night.

The requirements for sign illumination shall not be considered to be satisfied by street or highway lighting.

Sign Shapes⁸ and Colors⁹

Particular shapes, as shown in MUTCD Table 2A-4, shall be used exclusively for specific signs or series of signs, unless specifically stated otherwise in this Manual or in the MUTCD for a particular sign or class of signs.

The colors to be used on standard signs and their specific use on these signs shall be as indicated in the applicable sections of the MUTCD.

Common uses of sign colors are shown in MUTCD Table 2A-5. Color schemes on specific signs are shown in the illustrations located in each appropriate section of the MUTCD.

The colors coral, purple, and light blue are being reserved for uses that will be determined in the future by the Federal Highway Administration.

In Utah, the color Fluorescent Yellow-Green is reserved for school signing only. It cannot be used for any other application, including pedestrian and bicycle signs (refer to 2005 Edition of Utah Traffic Controls for School Zones).

See also MUTCD Section 2A.08
 See also MUTCD Section 2A.10
 See also MUTCD Section 2A.11

Dimensions¹⁰

The prescribed sign dimensions in the MUTCD, the SHS, and this Manual shall be used unless engineering judgment determines that other sizes are appropriate.

Where the Department determines that sizes smaller than the prescribed dimensions are appropriate for use, these dimensions shall not be less than the minimum dimensions specified in the MUTCD.

Where the Department determines that sizes larger than the prescribed dimensions are appropriate for use, standard proportions (letter height, interline, and edge spacing) shall be retained as much as practical.

Increases above the prescribed sizes should be used where greater legibility or emphasis is needed.

Wherever practical, the overall sign dimensions should be increased in 6 inch increments.

Symbols¹¹

Symbol designs shall in all cases be unmistakably similar to those shown in the MUTCD and in the SHS.

Word Messages¹²

All word messages shall use standard wording and letters as shown in the MUTCD and in the SHS.

Word messages should be as brief as possible and the lettering should be large enough to provide the necessary legibility distance. A minimum specific ratio of 1 inch of letter height per 33 feet of legibility distance should be used.

For information on the size of lettering for Conventional Road signs refer to MUTCD Section 2D.06. For information on the size of lettering related to Freeways and Expressways refer to MUTCD Section 2E.13 and Tables 2E-1 through 2E-4.

Abbreviations (see MUTCD Section 1A.14) should be kept to a minimum, and should include only those that are commonly recognized and understood, such as AVE (for Avenue), BLVD (for Boulevard), E (for East), or JCT (for Junction). When space does not allow for placement of a full proper direction name, then it is acceptable to abbreviate West as W, East as E, South as So and North as No. Examples include the use of 600 No for 600 North and So Salt Lake for South Salt Lake.

All sign lettering shall be in capital letters as provided in the SHS, except word messages on street name signs.

The lettering for names of places, streets, and highways on conventional road guide signs shall be in capital letters unless otherwise approved by UDOT Traffic and Safety.

See also MUTCD Section 2A.12
 See also MUTCD Section 2A.13
 See also MUTCD Section 2A.14

Sign Borders¹³

Unless specifically stated otherwise, each sign illustrated in the Manual and in the MUTCD shall have a border of the same color as the legend, at or just inside the edge.

The corners of all sign borders shall be rounded, except for STOP signs.

A dark border on a light background should be set in from the edge, while a light border on a dark background should extend to the edge of the panel.

The border width should not exceed the stroke-width of the major lettering of the sign and will vary based on the sign design.

Regulatory Signs

General information on regulatory signs is found in <u>MUTCD Chapter 2B</u>. Most regulatory signs have standardized designs that conform to the MUTCD and are contained in the SHS.

Sizes for standard regulatory signs are provided in <u>MUTCD Table 2B-1</u> and vary by roadway type.

The minimum sized signs may be used on low-speed roadways where the reduced legend size is adequate for the regulation or where physical conditions preclude the use of the other sizes.

An oversized size may be used for those special applications where speed, volume, or other factors result in conditions where increased emphasis, improved recognition, or increased legibility is desirable.

Freeway and Expressway sizes should be used for higher-speed applications to provide larger signs for increased visibility and recognition.

Regulatory signs specific to the Department are found in **PART 3** of this manual.

Warning Signs

General information on warning signs is found in <u>MUTCD Chapter 2C</u>. Most warning signs have standardized designs that conform to the MUTCD and are contained in the SHS.

All warning signs shall be diamond-shaped (square with one diagonal vertical) with a black legend and border on a yellow background except that the background shall be fluorescent yellow-green when associated with school signing (refer to 2005 Edition of Utah Traffic Controls for School Zones regarding fluorescent yellow-green school signing).

Warning signs serve a variety of conditions and purposes and sign dimensions should reflect the appropriate level of speed, volume, visibility, emphasis and improved recognition.

Sizes for standard warning signs are provided in <u>MUTCD Table 2C-2</u> and vary by roadway type.

Warning signs specific to the Department are found in **PART 3** of this manual.

¹³ See also MUTCD Section 2A.15

Guide Signs

Guide signs are essential to direct road users along streets and highways, to inform them of intersecting routes, to direct them to cities, towns, or other important destinations. They also identify nearby rivers and streams, parks, forests, and historical sites, and generally to give such information as will help them along their way in the most simple, direct manner possible.

Information related to the design of guide signs is divided into two groups; Conventional Roads and Freeways and Expressways (see MUTCD Chapters 2D and 2E).

A conventional road is a street or highway other than a low-volume road (as defined in MUTCD Section 5A.01) a freeway, or an expressway.

A freeway is defined as a divided highway with full control of access. An expressway is defined as a divided highway with partial control of access.

The requirements and specifications for expressway signing exceed those for conventional roads, but are less than those for freeway signing.

Guide signs specific to the Department are found in PART 3 of this manual.

General

Sign Dimension¹⁴

For most guide signs, the legends are so variable that a standardized size is not appropriate.

Sign size is determined primarily by:

- Length of the message.
- Size of lettering and spacing necessary for proper legibility.

Reduced spacing between the letters or words on a line of legend should not be used as a means of reducing the overall size of a guide sign, except where the Department determines it to be necessary to meet unusual lateral space constraints. In such cases, the legibility distance of the sign legend should be the primary consideration in determining whether to reduce the spacing between the letters or the words or between the words and the sign border.

In all cases, the overall sign dimensions should be increased or decreased in 6 inch increments.

Use of Abbreviations

Abbreviations should be kept to a minimum, and should include only those that are commonly recognized and understood, such as AVE (for Avenue), BLVD (for Boulevard), E (for East), or JCT (for Junction). Refer to MUTCD Section 1A.14 for a list of acceptable and unacceptable abbreviations.

Abbreviations are useful when complete destination messages produce excessively long signs. Periods should not be used unless a cardinal direction is abbreviated as part of a destination name.

¹⁴ See also MUTCD Section 2D.04

When space does not allow for placement of a full proper direction name, then it is acceptable to abbreviate West as W, East as E, South as So and North as No. Examples include the use of 600 No for 600 North and So Salt Lake for South Salt Lake.

The words NORTH, SOUTH, EAST, and WEST shall not be abbreviated when used with route signs to indicate cardinal directions on guide signs.

Conventional Roads

Standards for conventional road guide signs are found in MUTCD Chapter 2D and shall apply to any road or street other than low-volume roads (as defined in MUTCD Section 5A.01), expressways, and freeways. For specific information related to freeway and expressway guide signing, refer to the **Freeways and Expressways** section of this manual.

Most guide signs require customized designs that account for the variability in message or legend and standardizing specific their design details assists the Department in their effort to provide uniformity to the traveling public. A few guide signs, such as route signs, have a standardized design. For standardized designs, refer to the SHS for general design quidelines.

The following design guidelines are intended to help the sign designer understand and interpret key design elements.

Retroreflection, Illumination, Shape, and Color¹⁵

Requirements for retroreflection, illumination, shape, and color are stated under the specific headings for individual guide signs or groups of signs. General provisions are given in MUTCD Sections 2A.08, 2A.09, 2A.10, and 2A.11.

Overhead sign illumination is per UDOT Policy 06C-06 Highway Lighting unless and engineering study shows that retroreflectorization alone will perform effectively. The type of illumination chosen should provide effective and reasonably uniform illumination of the sign face and message,

Except where otherwise specified in the MUTCD or this Manual for individual signs or groups of signs, guide signs on streets and highways shall have a white message and border on a green background. All borders and legends shall be retroreflective and all backgrounds shall be retroreflective or illuminated.

Letter Style

The lettering for names of places, streets, and highways on conventional road guide signs shall be in capital letters unless otherwise approved by UDOT Traffic and Safety.

Size of Lettering¹⁶

Design layouts for conventional road guide signs showing interline spacing, edge spacing, and other specification details shall be as shown in the SHS.

The principal legend on guide signs shall be in letters and numerals at least 6 inches in height for all capital letters, or a combination of 6 inches in height for upper-case letters with 4.5 inch in height for lower-case letters.

See also <u>MUTCD Section 2D.03</u>See also <u>MUTCD Section 2D.06</u>

On urban streets with speeds of 25 mph or less, the principal legend shall be in letters at least 4 inches in height.

Lettering sizes should be consistent on any particular class of highway.

Legibility for signs should be a minimum ratio of 1 inch of letter height for every 40 feet of desired legibility.

Amount of Legend¹⁷

Guide signs should be limited to three lines of principal legend that includes only place names, route numbers, and street names. A city name and street name on the same sign should be avoided.

Where two or more signs are included in the same overhead display, the amount of legend should be minimized.

Arrows¹⁸

Arrows are used for lane assignment and to indicate the direction toward designated routes or destinations. Detailed drawings of the up-arrow and the down-arrow designs that are approved for use on guide signs are shown in the SHS.

For specific information related to the use of arrows refer to MUTCD section 2D.08.

On overhead signs where it is desirable to indicate a lane to be followed, a down arrow shall point downward toward the center of that lane.

Down arrows shall be used only on overhead guide signs that restrict the use of specific lanes to traffic bound for the destination(s) and/or route(s) indicated by these arrows.

Down arrows shall not be used unless an arrow can be pointed to each lane that can be used to reach the destination shown on the sign.

Where a roadway is leaving the through lanes, an up arrow shall point upward at an angle representative of the alignment of the exit roadway.

Arrows used on guide signs to indicate the directions toward designated routes or destinations should be pointed at the appropriate angle to clearly convey the direction to be taken. A horizontally oriented up-arrow design should be used at right-angle intersections.

On a ground-mounted guide sign, a directional arrow for a straight-through movement should point upward. For a turn, the arrow on a guide sign should point upward and at an angle related to the sharpness of the turn.

Arrows may be placed below the principal sign legend or on the appropriate side of the legend.

At an exit, an arrow should be placed at the side of the sign that will reinforce the movement of exiting traffic. The up-arrow design should be used.

The width across the arrowhead should be at least equal to the height of the largest letter on the sign. For short downward pointing arrows on overhead signs, the width across the arrowhead should be 1.75 times the letter height.

See also <u>MUTCD Section 2D.07</u>See also MUTCD Section 2D.08

Numbered Highway Systems¹⁹

Route systems shall be given preference in this order: Interstate, United States, State, and County. The preference shall be given by installing the highest-priority legend on the top or the left of the sign panel.

Route Signs and Auxiliary Signs²⁰

Identify numbered highway routes by route signs and auxiliary signs.

The signs for each system of numbered highways, which are distinctive in shape and color, shall be used only on that system and the approaches thereto.

Route signs and auxiliary signs may be proportionally enlarged where greater legibility is needed.

Route signs are typically mounted in assemblies with auxiliary signs.

Design of Route Signs²¹

The SHS shall be used for designing route signs other than the Utah route sign (see Figure **2-1**).



Figure 2-1 Route Signs

See Part 3 of this manual for specifics related to the Utah Route sign.

For conventional roads, the shield size shall be 24". For freeways/ expressways, the shield size shall be 36". When you have concurrent routes, the shield size shall be the same.

Sign concurrent routes as listed in UDOT Policy 07-20 Highway Linear Referencing with the exception of SR-9 and SR-276 (Bullfrog Road).

See also MUTCD Section 2D.09See also MUTCD Section 2D.10

²¹ See also MUTCD Section 2D.11

Design of Route Sign Auxiliaries²²

Route sign auxiliaries carrying word legends, except the JCT sign, shall have a standard size of 24 x 12 inches. Those carrying arrow symbols, or the JCT sign, shall have a standard size of 21 x 15 inches.

All route sign auxiliaries shall match the color combination of the route sign that they supplement.

Auxiliary signs carrying word messages and mounted with 30 x 24 inch Interstate Route signs should 30 x 15 inches. With route signs of larger sizes, auxiliary signs should be suitably enlarged, but not such that they exceed the width of the route sign.

A route sign and any auxiliary signs used with it may be combined on a single panel.

Junction Auxiliary Sign²³

The Junction auxiliary sign (see <u>MUTCD Figure 2D-4; M2-1</u>) shall carry the abbreviated legend JCT and shall be mounted at the top of an assembly (see <u>MUTCD Section 2D.27</u>) either directly above the route sign or above a sign for an alternative route (see <u>MUTCD Section 2D.16</u>) that is part of the route designation.

The minimum size of the Junction auxiliary sign shall be 21 x 15 inches for compatibility with auxiliary signs carrying arrow symbols.

Combination Junction Sign²⁴

As an alternative to the standard Junction assembly where more than one route is to be intersected or joined, a rectangular sign may be used carrying the word JUNCTION above the route numbers (see <u>MUTCD Figure 2D-4; M2-2</u>).

Other designs may be used to accommodate State and County Route signs.

The Combination Junction shall have a green background with white border and lettering for the word JUNCTION.

Where U.S. or State Route signs are used as components of guide signs, only the outline of the shield or other distinctive shape should be used.

Although the size of the Combination Junction sign will depend on the number of routes involved, the numerals should be large enough for clear legibility and should be of a size comparable with those in the individual route signs.

Cardinal Direction Auxiliary Signs²⁵

Cardinal Direction auxiliary signs (see <u>MUTCD Figure 2D-4; M3-1 through M3-4</u>) carrying the legend NORTH, EAST, SOUTH, or WEST should be used to indicate the general direction of the entire route.

To improve the readability, the first letter of the cardinal direction words shall be ten percent larger, rounded up to the nearest whole number size.

²² See also MUTCD Section 2D.12

²³ See also MUTCD Section 2D.13

²⁴ See also <u>MUTCD Section 2D.14</u>

²⁵ See also MUTCD Section 2D.15

If used, the Cardinal Direction auxiliary sign shall be mounted directly above a route sign or an auxiliary sign for an alternative route.

Auxiliary Signs for Alternative Routes²⁶

Auxiliary signs, carrying legends such as ALTERNATE, BY-PASS, BUSINESS, or TRUCK (see <u>MUTCD Figure 2D-4; M4-1 through M4-4</u>), may be used to indicate an alternate route of the same number between two points on that route.

If used, the auxiliary signs for alternative routes shall be mounted directly above a route sign.

Refer to MUTCD Sections 2D.17 through 2D.20 for specifics on ALTERNATE, BY-PASS, BUSINESS, or TRUCK auxiliary signs.

TO, END and TEMPORARY Auxiliary Signs²⁷

Specifics related to the design of TO, END, TEMPORARY and TEMP auxiliary signs (see MUTCD Figure 2D-4; M4-5 through M4-7a) are found in MUTCD Sections 2D.21 through 2D.24.

Advance Turn Arrow and Directional Arrow Auxiliary Signs²⁸

If used, the Advance Turn Arrow auxiliary sign (see <u>MUTCD Figure 2D-5</u>) shall be mounted directly below the route sign in Advance Route Turn assemblies, and displays a right or left arrow, the shaft of which is bent at a 90-degree angle (M5-1) or at a 45-degree angle (M5-2).

If used, the Directional Arrow auxiliary sign (see <u>MUTCD Figure 2D-5; M6 Series</u>) shall be mounted below the route sign in directional assemblies, and displays a single- or double-headed arrow pointing in the general direction that the route follows.

Route Sign Assemblies²⁹

A Route Sign assembly shall consist of a route sign and auxiliary signs that further identify the route and indicate the direction.

Route Sign assemblies shall be installed on all approaches to numbered routes that intersect with other numbered routes.

Where two or more routes follow the same section of highway, the route signs for Interstate, U.S., State, and County routes shall be mounted in that order from the left in horizontal arrangements and from the top in vertical arrangements. Subject to this order of precedence, route signs for lower-numbered routes shall be placed at the left or top.

Within groups of assemblies, information for routes intersecting from the left shall be mounted at the left in horizontal arrangements and at the top or center of vertical arrangements. Similarly, information for routes intersecting from the right shall be at the right or bottom, and for straight-through routes at the center in horizontal arrangements or top in vertical arrangements.

²⁶ See also MUTCD Section 2D.16

²⁷ See also MUTCD Section 2D.21 through 2D.24

²⁸ See also MUTCD Section 2D.25 and 2D.26

²⁹ See also MUTCD Section 2D.27

Assemblies for two or more routes, or for different directions on the same route, should be mounted in groups on a common support.

Route Sign assemblies may be installed on the approaches to numbered routes on unnumbered roads and streets that carry an appreciable amount of traffic destined for the numbered route.

If engineering judgment indicates that groups of assemblies that include overlapping routes or multiple turns might be confusing, route signs or auxiliary signs may be omitted or combined, provided that clear directions are given to road users.

MUTCD Figure 2D-6 shows typical arrangements and placements of route signs.

Junction Assembly³⁰

A Junction assembly shall consist of a Junction auxiliary sign and a route sign. The route sign shall carry the number of the intersected or joined route.

The Junction assembly shall be installed in advance of every intersection where a numbered route is intersected or joined by another numbered route.

Where two or more routes are to be indicated, a single Junction auxiliary sign may be used for the assembly and all route signs grouped in a single mounting, or a Combination Junction sign (see MUTCD Section 2D.14) may be used.

Advance Route Turn Assembly³¹

An Advance Route Turn assembly shall consist of a route sign, an Advance Turn Arrow or word message auxiliary sign, and a Cardinal Direction auxiliary sign, if needed.

It shall be installed in advance of an intersection where a turn must be made to remain on the indicated route.

The Advance Route Turn assembly may be used to supplement the required Junction assembly in advance of intersecting routes.

Where a multiple-lane highway approaches an interchange or intersection with a numbered route, the Advance Route Turn assembly should be used to pre-position turning vehicles in the correct lanes from which to make their turn.

An assembly that includes an Advance Turn Arrow auxiliary sign shall not be placed where there is an intersection between it and the designated turn.

Sufficient distance should be allowed between the assembly and any preceding intersection that could be mistaken for the indicated turn.

Directional Assembly³²

A Directional assembly shall consist of a route sign, a Directional Arrow auxiliary sign, and a Cardinal Direction auxiliary sign, if needed. The various uses of Directional assemblies shall be as outlined below:

See also MUTCD Section 2D.28
 See also MUTCD Section 2D.29
 See also MUTCD Section 2D.30

Turn movements (indicated in advance by an Advance Route Turn assembly) shall be marked by a Directional assembly with a route sign displaying the number of the turning route and a single-headed arrow pointing in the direction of the turn.

Mark the beginning of a route (indicated in advance by a Junction assembly) by a Directional assembly with a route sign displaying the number of that route and a singleheaded arrow pointing in the direction of the route.

Mark the end of a route by a Directional assembly with an END auxiliary sign and a route sign displaying the number of that route.

An intersected route (indicated in advance by a Junction assembly) shall be designated by:

- Two Directional assemblies, each with a route sign displaying the number of the intersected route, a Cardinal Direction auxiliary sign, and a single headed arrow pointing in the direction of movement on that route; or
- A Directional assembly with a route sign displaying the number of the intersected route and a double-headed arrow, pointing at appropriate angles to the left, right, or ahead.

Straight-through movements should be indicated by a Directional assembly with a route sign displaying the number of the continuing route and a vertical arrow. A Directional assembly should not be used for a straight-through movement in the absence of other assemblies indicating right or left turns, as the Confirming assembly sign beyond the intersection normally provides adequate guidance.

MUTCD Figure 2D-6 shows typical placements of Directional assemblies.

Confirming or Reassurance Assemblies³³

If used, Confirming or Reassurance assemblies shall consist of a Cardinal Direction auxiliary sign and a route sign.

If used, Reassurance assemblies should be installed between intersections in urban districts as needed, and beyond the built-up area of any incorporated City or town.

These assemblies are considered to be a type of Directional assembly.

Trailblazer Assembly³⁴

Trailblazer assemblies provide directional guidance to a particular road facility from other highways in the vicinity. This is accomplished by installing Trailblazer assemblies at strategic locations to indicate the direction to the nearest or most convenient point of access. The use of the word TO indicates that the road or street where the sign is posted is not a part of the indicated route, and that a road user is merely being directed progressively to the route.

A Trailblazer assembly shall consist of a TO auxiliary sign, a route sign (or a special road facility symbol), and a single-headed Directional Arrow auxiliary sign pointing in the direction leading to the route.

A Cardinal Direction auxiliary sign may be used with a Trailblazer assembly.

See also MUTCD Section 2D.31See also MUTCD Section 2D.32

The TO auxiliary sign, Cardinal Direction auxiliary sign, and Directional Arrow auxiliary sign should be of the standard size specified for auxiliary signs of their respective type.

Trailblazer assemblies may be installed with other Route Sign assemblies, or alone, in the immediate vicinity of the designated facilities.

Distance and Destination Signs

The direction of a roadway and the major destinations or control cities along it shall be clearly identified through the use of appropriate destination legends. Successive guide signs shall provide continuity in destination names and consistency with available map information. At any decision point, a given destination shall be indicated by way of only one route.

Refer to **UDOT Policy 06C-33 – Distance Signs on the Interstate System** for information related to the cities or points that can be used and the process for determining the mileage number to be placed on Interstate distance signs.

Additional Sign References

Table 2-1 presents MUTCD references to additional conventional road signs:

TABLE 2-1 Additional Conventional Road Sign MUTCD References				
Sign/Topic	MUTCD Section			
Street Name and Advance Street Name Signs	2D.38 and 2D.39			
Parking Area Sign	<u>2D.40</u>			
PARK & RIDE Sign	<u>2D.41</u>			
Rest Area Signs	<u>2D.42</u>			
Scenic Area Signs	<u>2D.43</u>			
Weigh Station Signing	<u>2D.44</u>			
General Service Signs	<u>2D.45</u>			
Reference Location Signs and Intermediate Reference Location Signs	<u>2D.46</u>			
Traffic Signal Speed Sign	<u>2D.47</u>			
General Information Signs	<u>2D.48</u>			
Signing of Named Highways	<u>2D.49</u>			
Trail Signs	<u>2D.50</u>			
Crossover Signs	<u>2D.51</u>			
National Scenic Byways Signs	<u>2D.52</u>			

Freeways and Expressways

Standards for guide signs on freeways and expressways is found in <u>MUTCD Chapter 2E</u>. These standards provide a uniform and effective system of highway signing for high-volume, high-speed motor vehicle traffic on freeways and expressways.

Guide signs for freeways and expressways are primarily identified by the name of the sign rather than by an assigned sign code. Guide sign installations are an integral part of the freeway or expressway facility and, as such, are best planned concurrently with the development of highway location and geometric design.

Freeway and expressway signing is to be considered and developed as a planned system of installations.

Standard shapes and colors shall be used so that road users can promptly recognize traffic signs.

Sian Color³⁵

Requirements for color are stated under the specific headings for individual guide signs or groups of signs. General provisions are given in <u>MUTCD Sections 2A.08</u>, <u>2A.09</u>, and <u>2A.11</u>.

Guide signs on freeways and expressways, except as herein noted, shall have white letters, symbols, and borders on a green background.

Color requirements for route signs and trailblazers, signs with blank-out or changeable messages, signs for services, rest areas, park and recreational areas, and for certain miscellaneous signs are specified in individual sections of the MUTCD dealing with the particular sign or sign group.

Different color sign backgrounds shall not be used to provide color-coding of destinations. The color-coding shall be accomplished by the use of different colored square or rectangular panels on the face of the guide signs.

The different colored panels may include a black or white (whichever provides the better contrast with the panel color) letter, numeral, or other appropriate designation to identify an airport terminal or other destination.

Examples of two color-coded sign assemblies are shown in MUTCD Figure 2D-1.

Retroreflection or Illumination

Letters, numerals, symbols, and borders of all guide signs shall be retroreflectorized. The background of all guide signs that are not independently illuminated shall be retroreflective.

Where there is no serious interference from extraneous light sources, retroreflectorized ground-mounted signs usually provide adequate nighttime visibility.

Overhead sign illumination is per **UDOT Policy 06C-06 Highway Lighting** unless an engineering study shows that retroreflectorization alone will perform effectively. The type of illumination chosen should provide effective and reasonably uniform illumination of the sign face and message.

³⁵ See MUTCD Section 2E.04

Amount of Legend

Per **UDOT Policy 06C-33 Distance Signs on the Interstate System**, the message on distance signs on the Interstate System will contain two or three destinations. All three destinations should be used whenever practical.

For supplemental guide signs, up to three destination names or street names may be allowed.

A City name and street name shall not be included on the same sign.

Where two or three signs are placed on the same supports, destinations or names should be limited to one per sign, or to a total of three in the display.

Sign legends should not exceed three lines of copy.

Sign legends may include symbols, route numbers, arrows, cardinal directions, and exit instructions.

Size and Style of Lettering and Signs³⁶

With all freeway and expressway signs, the message dimensions shall be determined first, and the outside sign dimensions secondarily.

Word messages in the legend of expressway guide signs shall be in letters at least 8 inches high. Larger lettering shall be used for major guide signs at or in advance of interchanges and for all overhead signs.

Minimum numeral and letter sizes for expressway guide signs according to interchange classification, type of sign and component of sign legend are shown in <u>MUTCD Tables 2E-1</u> and <u>2E-2</u>.

Minimum numeral and letter sizes for freeway guide signs, according to interchange classification, type of sign, and component of sign legend, appear in <u>MUTCD Tables 2E-3</u> and <u>2E-4</u>.

All names of places, streets, and highways on freeway and expressway guide signs shall be composed of lower-case letters with initial upper-case letters.

The letters and the numerals used shall be Series E(M) of the SHS. Other word legends shall be in capital letters.

Lettering size on freeway and expressway signs shall be the same for both rural and urban conditions.

Sign size is determined primarily in terms of the length of the message and the size of the lettering necessary for proper legibility.

Designs for upper-case, lower-case, and capital alphabets together with tables of recommended letter spacing, are shown in the SHS.

Where upper- and lower-case lettering is used, the initial upper-case letters should be approximately 1.33 times the "loop" height of the lower-case letters. Refer to SHS, Standard Alphabets Section, page 9-5, Figure 6 for a definition of loop height.

Freeway lettering sizes (see <u>MUTCD Tables 2E-3</u> and <u>2E-4</u>) should be used when expressway geometric design is comparable to freeway standards.

³⁶ See MUTCD Section 2E.13

A sign mounted over a particular roadway lane to which it applies might have to be limited in horizontal dimension to the width of the lane, so that another sign can be placed over an adjacent lane. The necessity to maintain proper vertical clearance might also place a further limitation on the size of the overhead sign and the legend that can be accommodated.

Interline and Edge Spacing³⁷

Interline spacing of upper-case letters should be approximately three-fourths the average of upper-case letter heights in adjacent lines of letters.

The spacings to the top and bottom borders should be equal to the average of the letter height of the adjacent line of letters. The lateral spacing to the vertical borders should be essentially the same as the height of the largest letter.

Sign Borders³⁸

Signs shall have a border of the same color as the legend in order to outline their distinctive shape and thereby give them easy recognition and a finished appearance.

For guide signs larger than 120 x 72 inches, the border should have a width of 2 inches. For smaller guide signs, a border width of 1.25 inches should be used, but the width should not exceed the stroke width of the major lettering on the sign.

Corner radii of sign borders should be one-eighth of the minimum sign dimension on guide signs, except that the radii should not exceed 12 inches on any sign.

The sign material in the area outside of the corner radius may be trimmed.

Symbols³⁹

Symbol designs shall be essentially like those shown in the MUTCD and the SHS.

A special effort should be made to balance legend components for maximum legibility of the symbol with the rest of the sign.

Educational plaques may be used below symbol signs where needed.

The Use of Arrows for Interchange Guide Signs⁴⁰

On all Exit Direction signs, both overhead and ground mounted, arrows shall be upward slanting and shall be located on the side of the sign consistent with the direction of the exiting movement.

Downward pointing arrows shall be used only for overhead guide signs to prescribe lane assignment for traffic bound for a destination or route that can be reached only by being in the designated lane(s).

Downward pointing arrows may be tilted where it is desired to emphasize the separation of roadways.

Examples of arrows for use on guide signs are shown in <u>MUTCD Figure 2D-2</u>. Detailed dimensions of arrows are provided in the SHS.

³⁷ See MUTCD Section 2E.14

³⁸ See MUTCD Section 2E.15

³⁹ See MUTCD Section 2E.17

⁴⁰ See MUTCD Section 2E.18

Overhead Signs⁴¹

Overhead signs should be used on freeways and expressways, at locations where some degree of lane-use control is desirable, and at locations where space is not available at the roadside.

An Exit Direction sign should be located overhead near the theoretical gore and generally on an overhead sign support structure. The theoretical gore is the point where the mainline and ramp edge lines come together.

The operational requirements of the present highway system are such that overhead signs have value at many locations. The factors to be considered for the installation of overhead sign displays are not definable in specific numerical terms.

The following conditions (not in priority order) may be considered in an engineering study to determine if overhead signs would be beneficial:

- Traffic volume at or near capacity;
- Complex interchange design;
- Three or more lanes in each direction:
- Restricted sight distance;
- Closely spaced interchanges;
- Multi-lane exits:
- Large percentage of trucks;
- Street lighting background;
- High-speed traffic;
- Consistency of sign message location through a series of interchanges:
- Insufficient space for ground-mounted signs;
- Junction of two freeways; and
- Left exit ramps.

Over-crossing structures may serve for the support of overhead signs, and under some circumstances, may be the only practical solution that will provide adequate viewing distance. Use of such structures as sign supports may eliminate the need for the foundations and sign supports along the roadside.

Number of Signs at an Overhead Installation and Sign Spreading⁴²

If overhead signs are warranted, the number of signs at these locations should be limited to only those essential in communicating pertinent destination information to the road user.

Exit Direction signs for a single exit and the Advance Guide signs should have only one panel with one or two destinations.

⁴¹ See <u>MUTCD Section 2A.17</u>
⁴² See <u>MUTCD Section 2E.10</u>

Regulatory signs, such as speed limits, should not be used in conjunction with overhead guide sign installations.

There should not be more than three guide signs displayed at any one location either on the overhead structure or its support.

At overhead locations, more than one sign may be installed to advise of a multiple exit condition at an interchange. If the roadway ramp or crossing roadway has complex or unusual geometrics, additional signs with confirming messages may be provided to properly guide the road user.

Sign spreading is a concept where major overhead signs are spaced along the freeway or expressway (see **Figure 2-2** or MUTCD Figure 2E-1) so that road users are not overloaded with a group of signs at a single location.

Where overhead signing is used, sign spreading should be used at all single exit interchanges and to the extent possible at multi-exit interchanges. Sign spreading should be accomplished by use of the following:



Figure 2-2: Example of Guide Sign Spreading

- The Exit Direction sign should be the only sign used in the vicinity of the gore (other than the Gore sign). It should be located overhead near the theoretical gore and generally on an overhead sign support structure.
- The Advance Guide sign to indicate the next interchange exit should be placed near the crossroad location. If the crossroad goes over the mainline, the Advance Guide sign should be placed on the overcrossing structure.

Pull-Through Signing⁴³

Pull-Through signs (see **Figure 2-3** or <u>MUTCD</u> <u>Figure 2E-2</u>) are overhead lane use signs intended for through traffic.

Pull-Through signs should be used where the geometrics of a given interchange are such that it is not clear to the road user as to which is the through roadway, or where additional route guidance is desired.





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Figure 2-3: Pull-Through Signs

Pull-Through signs with down arrows should be used as follows:

- Where the alignment of the through lanes is curved and the exit direction is straight ahead;
- Where the number of through lanes is not readily evident; and
- At multi-lane exits where there is a reduction in the number of through lanes.

⁴³ See MUTCD Section 2E.11

Signing for Interchange Lane Drops⁴⁴

Major guide signs for all lane drops at interchanges shall be mounted overhead.

An EXIT ONLY panel (see **Figure 2-4** or <u>MUTCD Figure 2E-9</u>) shall be used for all interchange lane drops where the through route is carried on the mainline.

The EXIT ONLY (down arrow) (E11-1) panel should be used on all signing of lane drops on all Advance Guide signs for right exits (see **Figure 2-5** or MUTCD Figure 2E-10).

For lane drops on the left side, diagrammatic signing with the EXIT ONLY (E11-1c) panel should be used without a down arrow for Advance Guide signs (see **Figure 2-6** or MUTCD Figure 2E-8).



Figure 2-4: EXIT ONLY Panels

The Exit Direction sign (see **Figure 2-7** or <u>MUTCD Figure 2E-20</u>) and E11-1a panel shall be of the format shown for all lane drops. The standard slanted up arrow (left or right side) shall be included on the Exit Direction sign (see **Figure 2-5**)

For two lane exits, where the outside exit lane drops and the inside exit lane also continues, the Exit Direction sign (see **Figure 2-8**) shall include an E11-1a panel modified to include a slanted up arrow and located to indicate the exit only lane. A standard slanted up arrow shall also be included on the lower left portion of the Exit Direction sign to indicate the optional exit lane. The Advance Guide signs for two lane exits (see **Figure 2-9**) shall include the EXIT ONLY (down arrow) (E11-1) panel to indicate the exit only lane. A standard down arrow shall also be included on the lower left portion of the Advance Guide sign to indicate the optional exit lane.

EXIT ONLY messages of either E11-1b or E11-1c formats may be used to retrofit existing signing to warn of a lane drop situation ahead.

If used on an existing sign, the E11-1b panel shall be placed on either side of a white down arrow. The E11-1c panel, if used on an existing nondiagrammatic sign, shall be placed between the lower destination message and the white down arrow.

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⁴⁴ See MUTCD Section 2E.20

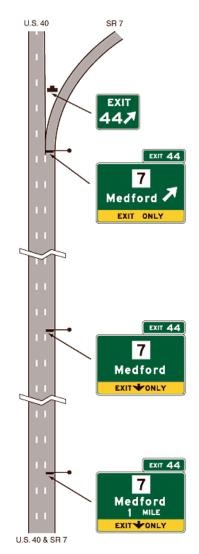
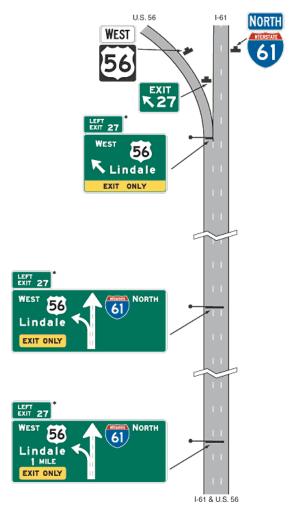


Figure 2-5: EXIT ONLY Panels for Right Lane Dropped at an Interchange



 The upper half of a Left Exit plaque, which contains the word LEFT, may have a black legend and border on a yellow background.

Figure 2-6: EXIT ONLY on Left with Diagrammatic Sign for Left Lane Dropped at an Interchange



Figure 2-7: Interchange Exit Direction Sign



Figure 2-8: Two Lane Interchange Exit Direction Sign

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Figure 2-9: Two Lane Interchange Advance Guide Sign

Diagrammatic Signs

Diagrammatic signs are signs that show a graphic view of the roadway arrangement, intended action, or special condition. Care must be taken to not confuse drivers with excessive messages and complex diagrams.

For additional information on the design of diagrammatic signs, contact UDOT Traffic and Safety.

Route signs and Trailblazer Assemblies⁴⁵

The official Route sign for the Interstate Highway System shall be the red, white, and blue retroreflective distinctive shield adopted by the American Association of State Highway and Transportation Officials (see <u>MUTCD Section 2D.11</u>).

Route signs (see **Figure 2-10** or <u>MUTCD Figure 2E-11</u>) should be incorporated as cut-out shields or other distinctive shapes on large directional guide signs. Where the Interstate shield is displayed in an assembly or on the face of a guide sign with U.S. or Utah Route signs, the Interstate numeral should be at least equal in size to the numerals on the other Route signs. The use of independent Route signs should be limited primarily to route confirmation assemblies.

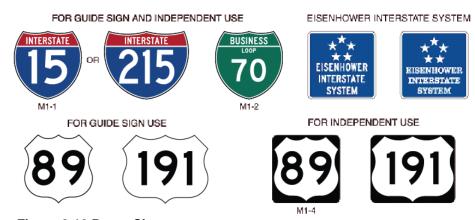


Figure 2-10 Route Signs

⁴⁵ See MUTCD_Section 2E.25

Route signs and auxiliary signs showing junctions and turns should be used for guidance on approach roads, for route confirmation just beyond entrances and exits, and for reassurance along the freeway or expressway. When used along the freeway or expressway, the Route signs should be enlarged as shown in the SHS. When independently mounted Route signs are used in place of Pull-Through signs, they should be located just beyond the exit.

The standard Trailblazer Assembly (see <u>MUTCD Section 2D.32</u>) may be used on roads leading to the freeway or expressway. Component parts of the Trailblazer Assembly may be included on a single sign panel. Independently mounted Route signs may be used instead of Pull-Through signs as confirmation information (see <u>MUTCD Section 2E.11</u>).

At-Grade Intersection Signs⁴⁶

If there are intersections at grade within the limits of an expressway, guide sign types specified in <u>MUTCD Chapter 2D</u> should be used. However, such signs should be of a size compatible with the size of other signing on the expressway.

Advance Guide signs for intersections at grade may take the form of diagrammatic layouts depicting the geometrics of the intersection along with essential directional information.

Interchange Guide Signs⁴⁷

The signs at interchanges and on their approaches shall include Advance Guide signs and Exit Direction signs. Consistent destination messages shall be displayed on these signs.

New destination information should not be introduced into the major sign sequence for one interchange, nor should destination information be dropped.

Reference should be made to <u>MUTCD Section 2E.10</u> and <u>MUTCD Sections 2E.30</u> through <u>2E.39</u> for a detailed description of the signs in the order that they should appear at the approach to and beyond each interchange. Guide signs placed in advance of an interchange deceleration lane should be spaced at least 800 ft apart.

Supplemental guide signing should be used sparingly as provided in MUTCD Section 2E.32.

Interchange Exit Numbering⁴⁸

Interchange exit numbering provides valuable orientation for the road user on a freeway or expressway. The feasibility of numbering interchanges or exits on an expressway will depend largely on the extent to which grade separations are provided. Where there is appreciable continuity of interchange facilities, interrupted only by an occasional intersection at grade, the numbering will be helpful to the expressway user.

⁴⁶ See MUTCD Section 2E.26

⁴⁷ See MUTCD Sections 2E.27

⁴⁸ See MUTCD Section 2E.28

the interchange numbering system for expressways shall conform to the provisions prescribed for freeways.

There are two approaches to interchange exit numbering that the State and local highway agencies may use: (1) reference location sign numbering or (2) consecutive numbering.

Reference location sign exit numbering is preferred over consecutive exit numbering for two reasons: (1) if new interchanges are added to a route, the highway agencies do not have to change the numbering sequence; and (2) reference location sign numbering assists road users in determining their destination distances and travel mileage.

Exit numbers may also be used with Supplemental Guide signs and Road User Service signs.

Exit number panels should be located toward the top left of the sign for a left exit and toward the top right for right exits.

Because road users might not expect a left exit and might have difficulty in maneuvering to the left, the word LEFT should be added to the exit number panel (see <u>MUTCD Figure 2E-3</u>). Where a left exit is not numbered (no exit number plaque), a plaque or panel with the word LEFT should be added to the top left edge of the sign.

The portion of the exit number plaque or panel containing the word LEFT may have a black legend and border on a yellow background.

The general plan for numbering interchange exits is shown in MUTCD Figures 2E-12 through 2E-14.

Example exit number plaque designs are shown in <u>MUTCD Figures 2E-3</u> and <u>2E-15</u>. <u>MUTCD Figures 2E-1</u>, <u>2E-20</u>, <u>2E-23</u>, <u>2E-27</u> through <u>2E-32</u>, and <u>2E-42</u> illustrate the incorporation of exit number plaques on guide signs.

Where a route originates within Utah, the southernmost or westernmost terminus shall be the beginning point for numbering. If a loop, spur, or circumferential route crosses Utah boundaries, the sequence of numbering shall be coordinated by the States to provide continuous numbering.

For circumferential routes, the numbering of interchanges shall be in a clockwise direction. The numbering shall begin with the first interchange west of the south end of an imaginary north-south line bisecting the circumferential route, at a radial freeway or other Interstate route, or some other conspicuous landmark in the circumferential route near a south polar location (see MUTCD Figure 2E-12).

The interchange numbers on loop routes shall begin at the loop interchange nearest the south or west mainline junction and increase in magnitude toward the north or east mainline junction (see MUTCD Figure 2E-13). Spur route interchanges shall be numbered in ascending order starting at the interchange where the spur leaves the mainline of the principal route (see MUTCD Figure 2E-13).

Where numbered routes overlap, continuity of interchange numbering shall be established for only one of the routes (see <u>MUTCD Figure 2E-14</u>). If one of the routes is an Interstate, the Interstate route shall maintain continuity of interchange numbering.

The route chosen for continuity of interchange numbering should also have reference location sign continuity (see MUTCD Figure 2E-14).

Interchange Classification⁴⁹

For signing purposes, interchanges are classified as major, intermediate, and minor. The minimum alphabet sizes contained in MUTCD Tables 2E-1 and 2E-3 are based on this classification. Descriptions of these classifications are as follows:

Major interchanges are subdivided into two categories: (a) interchanges with other expressways or freeways, or (b) interchanges with high-volume multi-lane highways, principal urban arterials, or major rural routes where the volume of interchanging traffic is heavy or includes many road users unfamiliar with the area.

Intermediate interchanges are those with urban and rural routes not in the category of major or minor interchanges.

Minor interchanges include those where traffic is local and very light, such as interchanges with land service access roads. Where the sum of exit volumes is estimated to be lower than 100 vehicles per day in the design year, the interchange is classified as minor.

Advance Guide Signs⁵⁰

The Advance Guide sign gives notice well in advance of the exit point of the principal destinations served by the next interchange and the distance to that interchange (see MUTCD Figure 2E-15).

For major and intermediate interchanges, Advance Guide signs should be placed at 0.5 miles and at 1 mile in advance of the exit with a third Advance Guide sign placed at 2 miles in advance of the exit if spacing permits.

At minor interchanges, only one Advance Guide sign should be used. It should be located 0.5 to 1 mile from the exit gore. If the sign is located less than 0.5 miles from the exit, the distance shown should be to the nearest 1/4 mile. Fractions of a mile, rather than decimals, should be shown in all cases.

Where Advance Guide signs are provided for a left exit, diagrammatic signs should be used. For additional information on the design of diagrammatic signs, contact UDOT Traffic and Safety.

When used, Advance Guide signs shall contain the distance message. The legend on the Advance Guide signs shall be the same as the legend on the Exit Direction sign, except that the last line shall read EXIT X MILES. If the interchange has two or more exit roadways, the bottom line shall read EXITS X MILES.

Where interchange exit numbers are used, the word EXIT may be omitted from the bottom line. Where the distance between interchanges is more than 1 mile, but less than 2 miles, the first Advance Guide sign may be closer 2 miles, but not placed so as to overlap the signing for the previous exit. Duplicate Advance Guide signs or Interchange Sequence Series signs may be placed in the median on the opposite side of the roadway and are not included in the minimum requirements of interchange signing.

Where there is less than 800 ft between interchanges, Interchange Sequence Series signs should be used instead of Advance Guide signs for the affected interchanges.

See MUTCD Section 2E.29See MUTCD Section 2E.30

Next Exit Supplemental Signs⁵¹

Where the distance to the next interchange is unusually long. Next Exit supplemental signs may be installed to inform road users of the distance to the next interchange (see MUTCD Figure 2E-16).

The Next Exit supplemental sign should not be used unless the distance between successive interchanges is more than 5 mi.

The Next Exit supplemental sign shall carry the legend NEXT EXIT X MILES. If the Next Exit supplemental sign is used, it shall be placed below the Advance Guide sign nearest the interchange. It shall be mounted so as to not adversely affect the breakaway feature of the sign support structure.

The legend for the Next Exit supplemental sign may be displayed in either one or two lines. The one-line message is the more desirable choice unless the message causes the sign to have a horizontal dimension greater than that of the Advance Guide sign.

Other Supplemental Guide Signs⁵²

Refer to UDOT Policy 06C-31 - Supplemental Signs and Service Signs for specific information related to the supplemental and service signs.

Supplemental Guide signs can be used to provide information regarding destinations accessible from an interchange, other than places shown on the standard interchange signing. However, such Supplemental Guide signing can reduce the effectiveness of other more important guide signing because of the possibility of overloading the road user's capacity to receive visual messages and make appropriate decisions.

No more than one Supplemental Guide sign should be used on each interchange approach.

A Supplemental Guide sign (see MUTCD Figure 2E-17) should not list more than two destinations. Destination names should be followed by the interchange number (and suffix), or if interchanges are not numbered, by the legend NEXT RIGHT or SECOND RIGHT or both, as appropriate. The Supplemental Guide sign should be installed as an independent guide sign assembly.

Where two or more Advance Guide signs are used, the Supplemental Guide sign should be installed approximately midway between two of the Advance Guide signs. If only one Advance Guide sign is used, the Supplemental Guide sign should follow it by at least 800 feet. If the interchanges are numbered, the interchange number should be used for the action message.

Guide signs directing drivers to park and ride facilities shall be considered as Supplemental Guide signs (see MUTCD Figures 2E-18 and 2E-19).

Exit Direction Signs⁵³

The Exit Direction sign repeats the route and destination information that was shown on the Advance Guide sign(s) for the next exit, and thereby assures road users of the destination served and indicates whether they exit to the right or the left for that destination.

⁵¹ See MUTCD Section 2E.31 52 See MUTCD Section 2E.32

⁵³ See MUTCD Section 2E.33

Exit Direction signs (see <u>MUTCD Figure 2E-20</u>) shall be used at major and intermediate interchanges. Population figures or other similar information shall not be used on Exit Direction signs.

Exit Direction signs should be used at minor interchanges.

Ground-mounted Exit Direction signs should be installed at the beginning of the deceleration lane. If there is less than 300 ft from the beginning of the deceleration lane to the theoretical gore (see MUTCD Figure 3B-8), the Exit Direction sign should be installed overhead over the exiting lane in the vicinity of the theoretical gore.

Where a through lane is being terminated (dropped) at an exit, the Exit Direction sign shall be placed overhead at the theoretical gore (see <u>MUTCD Figures 2E-8</u> and <u>2E-10</u>).

The following provisions shall govern the design and application of the overhead Exit Direction sign:

- The sign shall carry the exit number (if used), the route number, cardinal direction, and destination with an appropriate upward slanting arrow (see <u>MUTCD Figure 2E-20</u>).
- The message EXIT ONLY in black on a yellow panel shall be used on the overhead Exit Direction sign to advise road users of a lane drop situation. The sign shall conform to the provisions of <u>MUTCD Section 2E.20</u>.
- Diagrammatic signs shall not be employed at the exit direction location.

Exit number plaques should be located toward the left edge of the sign for a left exit and toward the right edge for right exits.

In some cases, principally in urban areas, where restricted sight distance because of structures or unusual alignment make it impossible to locate the Exit Direction sign without violating the required minimum spacing (see MUTCD Section 2E.30) between major guide signs, Interchange Sequence signs (see MUTCD Section 2E.37) may be substituted for an Advance Guide sign.

At multi-exit interchanges, the Exit Direction sign should be located directly over the exiting lane for the first exit. At the same location, and normally over the right through lane, an Advance Guide sign for the second exit should be located. Only for those conditions where the through movement is not evident should a confirmatory message (Pull-Through sign as shown in MUTCD Figure 2E-2) be used over the left lane(s) to guide road users traveling through an interchange. In the interest of sign spreading, three signs on one structure should not be used. When the freeway or expressway is on an overpass, the Exit Direction sign should be installed on an overhead support over the exit lane in advance of the gore point.

If the second exit is beyond an underpass, the Exit Direction sign may be mounted on the face of the overhead structure.

Exit Gore Signs⁵⁴

The Exit Gore sign in the gore area indicates the exiting point or the place of departure from the main roadway. Consistent application of this sign at each exit is important. The theoretical gore is the point where the mainline and ramp edge lines come together. The

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⁵⁴ See MUTCD Section 2E.34

PART 2 GENERAL DESIGN PRINCIPLES

Exit Gore sign shall be located in the gore and shall carry the word EXIT or EXIT XX (if interchange numbering is used) and an appropriate upward slanting arrow (see MUTCD Figure 2E-21). Breakaway or yielding supports shall be used.

The arrow should be aligned to approximate the angle of departure. Each gore should be treated similarly, whether the interchange has one exit roadway or multiple exits.

Where extra emphasis of an especially low advisory ramp speed is needed, an E13-1 panel indicating the advisory speed may be mounted below the Exit Gore sign (see MUTCD) Figure 2E-21) to supplement, but not to replace, the exit or ramp advisory speed warning signs.

Post-Interchange Signs⁵⁵

If space between interchanges permits, as in rural areas, and where undue repetition of messages will not occur, a fixed sequence of signs should be displayed beginning 500 ft beyond the end of the acceleration lane. At this point a Route sign assembly should be installed followed by a Speed Limit sign and a Distance sign, each at a spacing of 1,000 ft.

If space between interchanges does not permit placement of these three post-interchange signs without encroaching on or overlapping the Advance Guide signs necessary for the next interchange, or in rural areas where the interchanging traffic is primarily local, one or more of the post-interchange signs should be omitted.

Usually the Distance sign will be of less importance than the other two signs and may be omitted, especially if Interchange Sequence signs are used. If the sign for through traffic on an overhead assembly already contains the route sign, the post-interchange route sign assembly may also be omitted.

Distance Signs

Refer to **UDOT Policy 06C-33 – Distance Signs on the Interstate System** for information related to the cities or points that can be used and the process for determining the mileage number to be placed on Interstate distance signs.

Interchange Sequence Signs⁵⁶

If there is less than 800 ft between interchanges, Interchange Sequence signs should be used instead of the Advance Guide signs for the affected interchanges. If used, Interchange Sequence signs should be used over the entire length of a route in an urban area. They should not be used on a single interchange basis.

If interchanges are closely spaced, particularly through large urban areas, so that guide signs cannot be adequately spaced. Interchange Sequence signs identifying the next two or three interchanges may be used.

Interchange Sequence signs are generally supplemental to Advance Guide signs. Signing of this type is illustrated in MUTCD Figures 2E-23 and 2E-24, and is compatible with the sign spreading concept.

These signs are installed in a series and display the next two or three interchanges by name or route number with distances to the nearest 1/4 mile.

See <u>MUTCD Section 2E.35</u>See <u>MUTCD Section 2E.37</u>

PART 2 GENERAL DESIGN PRINCIPLES

If used, the first sign in the series shall be located in advance of the first Advance Guide sign for the first interchange.

Where the exit direction is to the left, interchange names or route numbers shown on such signs shall be followed by the legend LEFT or LEFT EXIT in black letters on a yellow rectangular background.

Interchange Sequence signs shall not be substituted for Exit Direction signs.

Interchange Sequence signs should be located in the median. After the first of the series, Interchange Sequence signs should be placed approximately midway between interchanges.

Interchange Sequence signs located in the median shall be installed at overhead sign height.

Interchange numbers may be shown to the left of the interchange name or route number.

Community Interchanges Identification Signs⁵⁷

For suburban or rural communities served by two or three interchanges, Community Interchanges Identification signs are useful (see MUTCD Figure 2E-25).

In these cases, the name of the community followed by the word EXITS should be shown on the top line; the lines below should display the destination, road name or route number, and the corresponding distances to the nearest 1/4 mile.

The sign should be located in advance of the first Advance Guide sign for the first interchange within the community.

If interchanges are not conveniently identifiable or if there are more than three interchanges to be identified, the NEXT X EXITS sign (see MUTCD Section 2E.39) may be used.

NEXT EXITS Sign⁵⁸

Many freeways or expressways pass through historical or recreational regions, or urban areas served by a succession of several interchanges.

Such regions or areas may be indicated by a NEXT X EXITS sign (see MUTCD Figure 2E-26) located in advance of the Advance Guide sign or signs for the first interchange.

The sign legend should identify the region or area followed by the words NEXT X EXITS.

Guide Sign Classifications

Table 2.2 presents MUTCD references to additional freeway and expressway signs:

⁵⁷ See <u>MUTCD Section 2E.38</u>⁵⁸ See <u>MUTCD Section 2E.39</u>

TABLE 2- Additional Freeway and Expre Reference	essway Sign MUTCD
Sign/Topic	MUTCD Section
Signing by Type of Interchange	<u>2E.40</u>
Freeway-to-Freeway Interchange	<u>2E.41</u>
Cloverleaf Interchange	<u>2E.42</u>
Partial Cloverleaf Interchange	<u>2E.44</u>
Diamond Interchange	<u>2E.45</u>
Diamond Interchange in Urban Area	<u>2E.46</u>
Closely Spaced Interchanges	<u>2E.47</u>
Minor Interchange	<u>2E.48</u>
Signing of Approaches and Connecting Roadways	<u>2E.49</u>
Wrong-Way Traffic Control at Interchange Ramps	<u>2E.50</u>
General Service signs	<u>2E.51</u>
Rest and Scenic Area signs	<u>2E.52</u>
Tourist Information and Welcome Center Signs	<u>2E.53</u>
Reference Location Signs	<u>2E.54</u>
Miscellaneous Guide Signs	<u>2E.55</u>
Radio Information Signing	<u>2E.56</u>
Carpool and Ridesharing Signing	<u>2E.57</u>
Weigh Station Signing	<u>2E.58</u>
Specific Services Signs	<u>2F</u>
Recreational and Cultural Interest Area Signs	<u>2H</u>

Highway Sign Design Process

Plans for signing should be analyzed and coordinated with the Department during the earliest stages of preliminary design, with details being correlated as final design is developed.

PART 3 SIGNS

This part of the *UDOT Sign Manual* is designed to help users identify and design signs that are unique to the State of Utah. It is essential that these signs be designed in a uniform manner so as to provide a safe and effective highway system. The signs are divided into three areas, one for each sign type:

- Regulatory signs give notice of traffic laws or regulations (See MUTCD Section 2B).
- Warning signs give notice of a situation that might not be readily apparent (See MUTCD Section 2C).
- Guide signs show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, or cultural information (See MUTCD Sections 2D, 2E, 2F, 2G, and 2H).

Each sign exhibit includes a graphic of the sign and specific design criteria.

If a sign is not in this section of the Manual, consult the MUTCD or contact UDOT Traffic and Safety.

Regulatory Signs

Dust Storm Area Series

RS8-7a: Dust Storm Area Series Do Not Stop

RS8-7b: Dust Storm Area Series Stay in Lane

RS8-7c: Dust Storm Area Series Speed Limit

RS8-7d: Dust Storm Area Series End

HOV/HOT Signs

RS3-10: HOV Series Carpool or Toll Required 36 x 108

RS3-11a: HOV Series Left Lane Do Not Stop 36 x 60

RS3-11b: HOV Series Carpools or Toll Only 36 x 72

RS3-11c: HOV Series Fine Imposed 36 x 78

RS3-12: HOV Series Restricted Lane Ahead 36 x 90

RS3-12a: HOV Series End Restricted Lane 36 x 54

RS3-12b: HOV Series Lane Ends ½ Mile 36 x 60

RS3-13: HOV Series Carpools or Toll Only

RS3-15a: HOV Series Lane Ends ¼ Mile

Noise Ordinance Enforced Series

RS12-4a: Noise Ordinance Enforced Freeway

RS12-4b: Noise Ordinance Enforced Conventional

RS4-3: Slow Down, Move Over 120 x 48

RS12-3: No Vehicles Towing Trailers in Left 2 Lanes

RS4-3: Slower Traffic Use Flashers

Warning Signs

WS8-13: Watch For Ice

Wildlife signs

WS3-11a Frequent Wildlife Series Next XX Miles

WS3-11b Frequent Wildlife Series Migration Area

Sharp Curve signs

WS13-5: Sharp Curve Series 120 x 66

WS13-5: Sharp Curve Series 120 x 78

WS13-5: Sharp Curve Series 102 x 66

WS13-5: Sharp Curve Series 78 x 60

WS13-5: Sharp Curve Series 96 x 66

WS13-5: Sharp Curve Series 102 x 60

WS13-5: Sharp Curve Series 102 x 48

Guide Signs

Upcoming Project Notification Series

GS6-2a: Lane Gain

GS6-2b: Project Notification

Drowsy Driver Series

GS7-4a: Drowsy Driving Causes Crashes

GS7-4b: Drowsy Drivers Next Exit 15 Miles

GS7-4c: Drowsy Drivers Pull Over if Necessary

GS7-4d: Drowsy Drivers Use Next Exit

Adopt-A-Highway Series

GS2D-12: Adopt-A-Highway

GS12-4a: Available Please Call

GS12-4b: Adopt-A-Highway Entity - Three Line

GS12-4c: Adopt-A-Highway Entity – Two Line

GS-5: Airport Trailblazer

GS2d-8 Interchange Sequence Sign

Rest Stop Sign Series

DS5-1a: Rest Stop Advance Sign

DS5-1b: Rest Stop Service Sign Exit

DS5-2a: Rest Stop Service Ramp Terminal Sign

Summit and Elevation Sign Series

GS-3a: Summit or Elevation Sign

GS-3b: Summit or Elevation Sign

State Route Sign Series

GS1-4a: State Route Sign - Two Digit

GS1-4b: State Route Sign - Three Digit

RS8-7a: DUST STORM AREA SERIES DO NOT STOP



1. Colors

Top Area

- i. Background -Yellow (Retroreflective)
- ii. Legend Black
- iii. Border -Black

Bottom Area

- i. Background –White (Retroreflective)
- ii. Legend Black
- iii. Border Black

2. Dimension and Shape

108" X 60" Rectangle

3. Letter Size

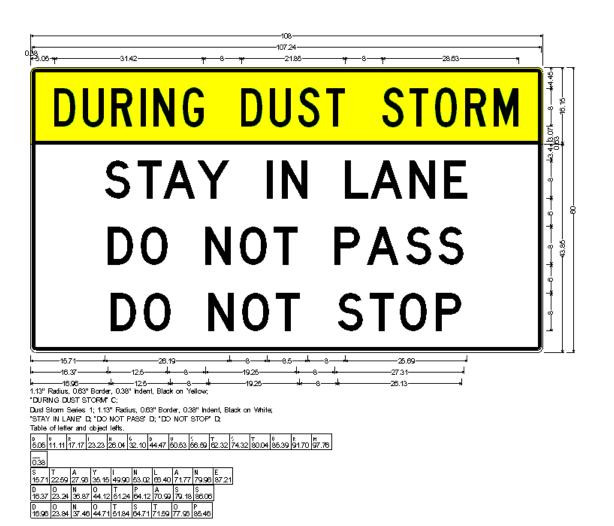
DUST STORM AREA – 8" C
DO NOT STOP ON ROADWAY NEXT XX MILES – 8" D

4. Symbol/ Pictograph

N/A

5. Arrow

RS8-7b: DUST STORM AREA SERIES STAY IN LANE



1. Colors

Top Area

- i. Background -Yellow (Retroreflective)
- ii. Legend Black
- iii. Border -Black

Bottom Area

- i. Background –White (Retroreflective)
- ii. Legend Black
- iii. Border Black

2. Dimension and Shape

108" X 60" Rectangle

3. Letter Size

DURING DUST STORM – 8" C STAY IN LANE DO NOT PASS DO NOT STOP – 8" D

4. Symbol/ Pictograph

N/A

5. Arrow

RS8-7c: DUST STORM AREA SERIES SPEED LIMIT



1. Colors

Top Area

i. Background –Yellow (Retroreflective)

ii. Legend – Black

iii. Border – Black

Bottom Area

iv. Background - White (Retroreflective)

v. Legend - Black

vi. Border – Black

2. Dimension and Shape

48" X 96" Rectangle

3. Letter Size

DUST STORM - 8" D

SPEED LIMIT - 8" E

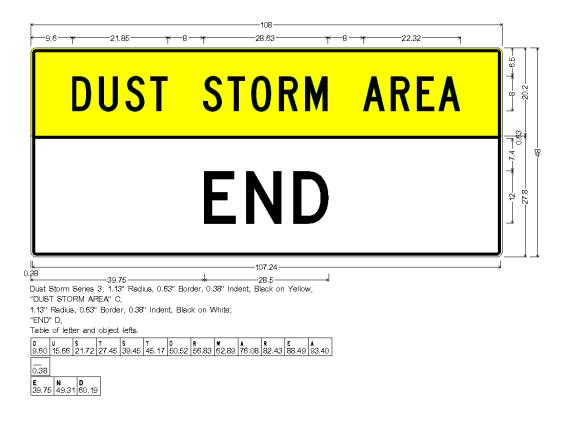
30 - 16" E

4. Symbol/ Pictograph

N/A

5. Arrow

RS8-7d: DUST STORM AREA SERIES END



1. Colors

Top Area

iv. Background -Yellow (Retroreflective)

v. Legend – Black

vi. Border – Black

Bottom Area

vii. Background – White (Retroreflective)

viii. Legend – Black

ix. Border - Black

2. Dimension and Shape

108" X 48" Rectangle

3. Letter Size

DURING DUST STORM - 8" C

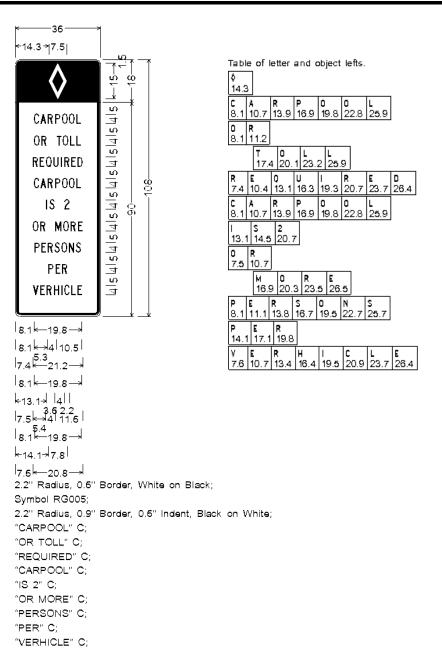
END - 12" D

4. Symbol/ Pictograph

N/A

5. Arrow

RS3-10: HOV SERIES CARPOOL OR TOLL REQUIRED 36x108



1. Colors

Top Area

- i. Background Black
- ii. Legend White (Retroreflective)
- iii. Border White (Retroreflective)

Bottom Area

- x. Background White (Retroreflective)
- xi. Legend Black
- xii. Border Black

2. Dimension and Shape

36" X 108" Rectangle

3. Letter Size

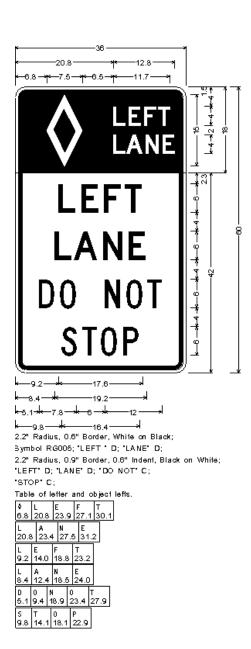
CARPOOL OR TOLL REQUIRED CARPOOL IS 2 OR MORE PERSON PER VEHICLE – 4" C

4. Symbol/ Pictograph

HOV Diamond - 15" White (Retroreflective)

5. Arrow

RS3-11a: HOV SERIES LEFT LANE DO NOT STOP 36x60



1. Colors

Top Area

iv. Background - Black

v. Legend - White (Retroreflective)

vi. Border - White (Retroreflective)

Bottom Area

xiii. Background – White (Retroreflective)

xiv. Legend - Black

xv. Border - Black

2. Dimension and Shape

36" X 60" Rectangle

3. Letter Size

LEFT LANE - 4" D

LEFT LANE - 6" D

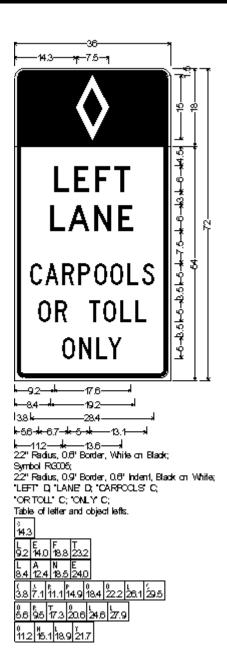
DO NOT STOP - 6" C

4. Symbol/ Pictograph

HOV Diamond – 15" White (Retroreflective)

5. Arrow

RS3-11b: HOV SERIES CARPOOLS OR TOLL ONLY 36x72



1. Colors

Top Area

vii. Background - Black

viii. Legend - White (Retroreflective)

ix. Border - White (Retroreflective)

Bottom Area

xvi. Background – White (Retroreflective)

xvii. Legend – Black

xviii. Border - Black

2. Dimension and Shape

36" X 72" Rectangle

3. Letter Size

LEFT LANE - 6" D

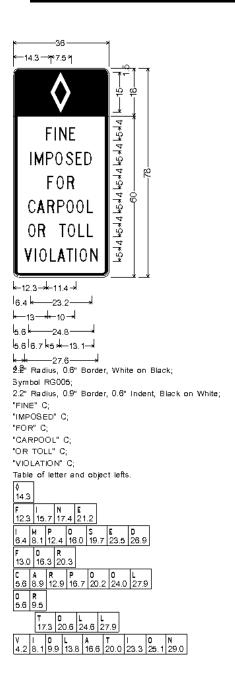
CARPOOLS OR TOLL ONLY - 5" C

4. Symbol/ Pictograph

HOV Diamond – 15" White (Retroreflective)

5. Arrow

RS3-11c: HOV SERIES FINE IMPOSED 36x78



1. Colors

Top Area

x. Background – Black

xi. Legend - White (Retroreflective)

xii. Border - White (Retroreflective)

Bottom Area

xix. Background – White (Retroreflective)

xx. Legend - Black

xxi. Border – Black

2. Dimension and Shape

36" X 78" Rectangle

3. Letter Size

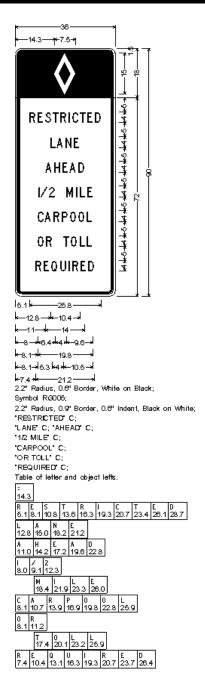
FINE IMPOSED FOR CARPOOL OR TOLL VIOLATION - 5" C

4. Symbol/ Pictograph

HOV Diamond – 15" White (Retroreflective)

5. Arrow

RS3-12: HOV SERIES RESTRICTED LANE AHEAD 36x90



1. Colors

Top Area

i. Background – Black

ii. Legend – White (Retroreflective)

iii. Border - White (Retroreflective)

Bottom Area

xxii. Background – White (Retroreflective)

xxiii. Legend - Black

xxiv. Border - Black

2. Dimension and Shape

36" X 90" Rectangle

3. Letter Size

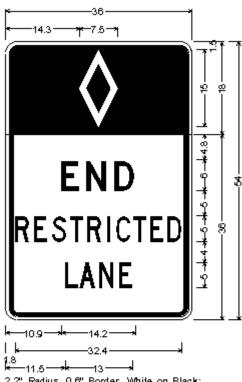
RESTRICTED LANE AHEAD $\frac{1}{2}$ MILE CARPOOL OR TOLL REQUIRED – $\frac{1}{2}$ C

4. Symbol/ Pictograph

HOV Diamond - 15" White (Retroreflective)

5. Arrow

RS3-12a: HOV SERIES END RESTRICTED LANE 36x54



2.2" Radius, 0.6" Border, White on Black;

Symbol RG005;

2.2" Radius, 0.9" Border, 0.6" Indent, Black on White;

"END" D; "RESTRICTED" C;

"LANE" C;

Table of letter and object lette

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1. Colors

Top Area

Background - Black xiii.

Legend – White (Retroreflective) xiv.

Border - White (Retroreflective) XV.

Bottom Area

Background – White (Retroreflective) XXV.

Legend - Black xxvi.

Border - Black xxvii.

2. Dimension and Shape

36" X 54" Rectangle

3. Letter Size

END - 6" D

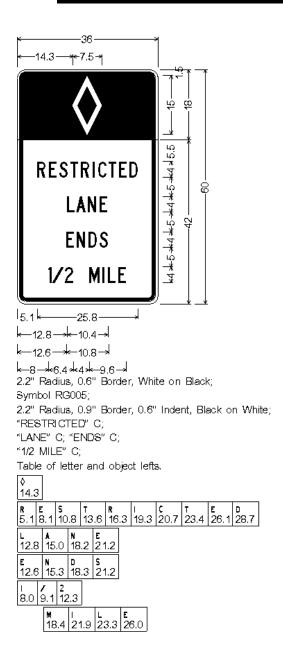
RESTRICTED LANE - 5" C

4. Symbol/ Pictograph

HOV Diamond – 15" White (Retroreflective)

5. Arrow

RS3-12b: HOV SERIES LANE ENDS 1/2 Mile 36x60



1. Colors

Top Area

xvi. Background – Black

xvii. Legend – White (Retroreflective)

xviii. Border - White (Retroreflective)

Bottom Area

xxviii. Background – White (Retroreflective)

xxix. Legend – Black

xxx. Border - Black

2. Dimension and Shape

36" X 60" Rectangle

3. Letter Size

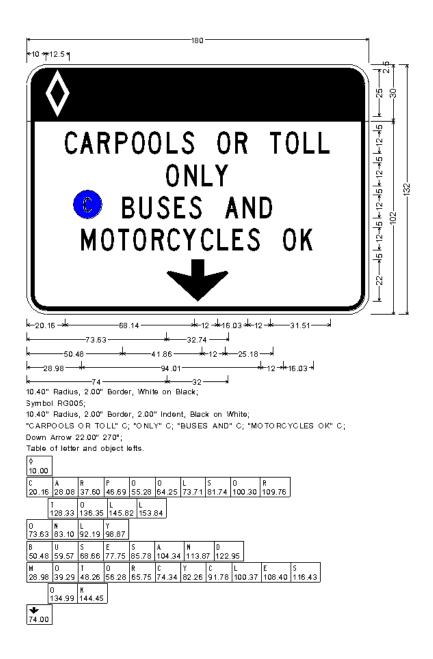
RESTRICTED LANE ENDS 1/2 MILE - 4" C

4. Symbol/ Pictograph

HOV Diamond – 15" White (Retroreflective)

5. Arrow

RS3-13: HOV SERIES CARPOOLS OR TOLL ONLY



1. Colors

Top Area

xix. Background - Black

xx. Legend – White (Retroreflective)

xxi. Border - White (Retroreflective)

Bottom Area

xxxi. Background – White (Retroreflective)

xxxii. Legend - Black

xxxiii. Border - Black

2. Dimension and Shape

180" X 132" Rectangle

3. Letter Size

CARPOOLS OR TOLL ONLY BUSES AND MOTORCYCLES OK – 12" C

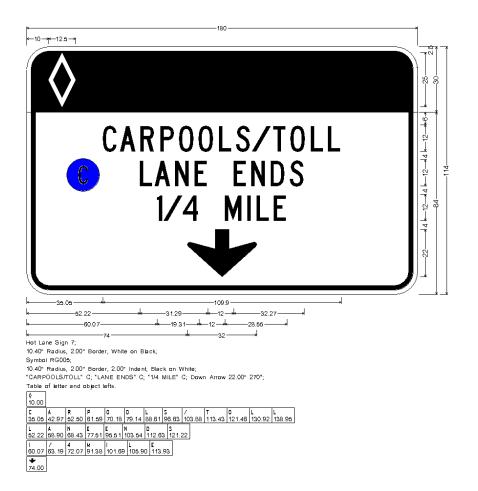
4. Symbol/ Pictograph

HOV Diamond – 25" White (Retroreflective) Clean Air Symbol – Light blue

5. Arrow

Down Arrow - 22" Black

RS3-15a: HOV SERIES CARPOOL LANE ENDS 1/4 MILE



1. Colors

Top Area

xxii. Background - Black

xxiii. Legend - White (Retroreflective)

xxiv. Border - White (Retroreflective)

Bottom Area

xxxiv. Background – White (Retroreflective)

xxxv. Legend - Black

xxxvi. Border – Black

2. Dimension and Shape

180" X 114" Rectangle

3. Letter Size

CARPOOLS/TOLL LANE ENDS 1/4 MILE - 12" C

4. Symbol/ Pictograph

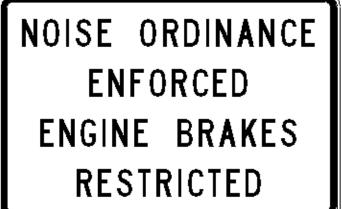
HOV Diamond – 25" White (Retroreflective) Clean Air Symbol – Light blue

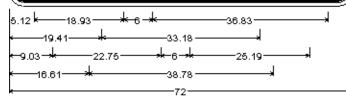
5. Arrow

Down arrow - 22" Black

RS12-4a: NOISE ORDINANCE ENFORCED

FREEWAY





3.00" Radius, 1.25" Border, 0.75" Indent, Black on White;

"NOISE ORDINANCE" C; "ENFORCED" C; "ENGINE BRAKES" C; "RESTRICTED" C:

lable	01 1611	ег апо	ob jeci	етть.					
N 5.12	0 9.87	14.40	5 E 16.51 2	1.05					
	0 30.05	R 34.78	D 39.33	l 43.87	N 45.98	A 50.27	N 55.04	C 59.58	E 63.88
E 19.41	N 23.42	F 27.96	0 3 31.98	R 36.71	C 41.00	E 45.30	0 49.31		
E 9.03	N 13.04	G 17.58	I 22.13	N 24.24	E 28.78				
	B 37.78	R 42.33	A 46.62	K 51.38	E 55.68	5 59.69			
R 16.61	E 21.18	S 25.16	T 29.46	R 33.47	I 38.02	C 40.12	T 44.09	E 48.10	D 52.11

1. Colors

Background - White (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

72" X 48" Rectangle

3. Letter Size

ENGINE BRAKES RESTRICTED - 10" C

4. Symbol/ Pictograph

N/A

5. Arrow

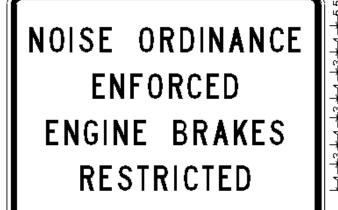
N/A

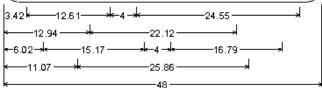
NOTES

- 1) Refer to Department Policy 06C-24
- 2) Supplemental Distance Legend is Optional

RS12-4b: NOISE ORDINANCE ENFORCED

CONVENTIONAL





2.25" Radius, 0.88" Border, 0.63" Indent, Black on White;
"NOISE ORDINANCE" C; "ENFORCED" C; "ENGINE BRAKES" C;
"RESTRICTED" C:

Table of letter and object lefts.

Ianie	OI IOI	ne en	a onlec	t teits.					
N 3.42	0 6.45	9.60 f	5 E 11.00 1	4.03					
	lo	l R	lo	l 29.25	N 30.65	A 33.52	N 36.69	C 39.72	E 42.58
E 12.94	N 15.6	F 1 18.6	0 4 21.3:	R 2 24.47	0 27.34	E 30.20	D 32.87		
E 6. 0 2	N 8.69	6 11.72	l 14.75	N E 16.16 1	9.19				
	B 25.19	R 28.23	A 2 31.08	K 34.26	E 37.12	5 39.79			
R 11.07	E 14.1	S 0 16.7	T 8 19.6	R 4 22.32	I 25.34	0 26.75	T 29.39	E 32.07	D 34.74

1. Colors

Background - White (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

48" X 36" Rectangle

3. Letter Size

ENGINE BRAKES RESTRICTED - 6" C

4. Symbol/ Pictograph

N/A

5. Arrow

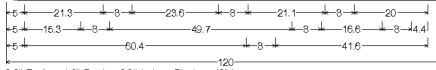
N/A

NOTES

- 1) Refer to Department Policy 06C-24
- 2) Supplemental Distance Legend is Optional

RS4-3: SLOW DOWN, MOVE OVER (120 x 48)





3.0" Radius, 1.3" Border, 0.8" Indent, Black on White;

"SLOW DOWN, MOVE OVER" C specified length;

"FOR EMERGENCY, TOW &" C specified length;

"MAINTENANCE VEHICLES" C specified length;

Table of letter and object lefts.

labi	9 01 1	errei	anu c	nject	iens.											
s 5.0	L 10.3	0 15.0	¥ 20.3	D 34.3	0 39.4	¥ 44.8	N 51.5	56.8	M 65.9	0 72.0	y 77.4	E 83.0	o 95.0	y 100.3	E 105.9	R 110.6
F 5.0	0 10.0	R 15.9	E 28.3	м 33.3	E 39.7	R 44.8	G 50.2	E 55.8	N 60.8	c 66.5	Υ 71.5	76.8	т 86.0	0 91.0	¥ 96.6	1 110.6
M 5.0	አ 11.6	I 18.0	N 20.8	† 26.6	E 32.0	N 37.4	A 43.2	N 49.6	c 55.7	E 61.4						
	y 73.4	E 4 79.	7 H 85.	1 91.2	c 94.1	L 1 99.8	E 105.	2 S	0.6							

1. Colors

Background – White (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

120" X 48" Rectangle

3. Letter Size

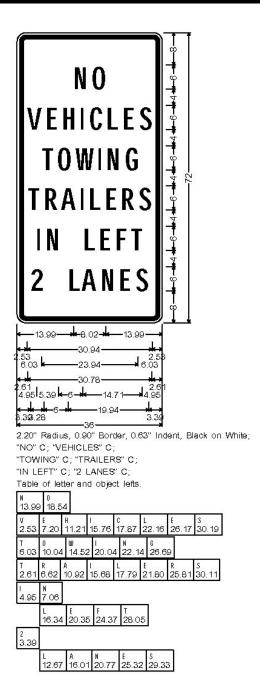
SLOW DOWN, MOVE OVER FOR EMERGENCY, TOW & MAINTENANCE VEHICLES – 8" C

4. Symbol/ Pictograph

N/A

5. Arrow

RS12-3: NO VEHICLES TOWING TRAILERS IN LEFT 2 LANES



1. Colors

Background - White (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

36" X 72" Rectangle

3. Letter Size

NO VEHICLES TOWING TRAILERS IN LEFT 2

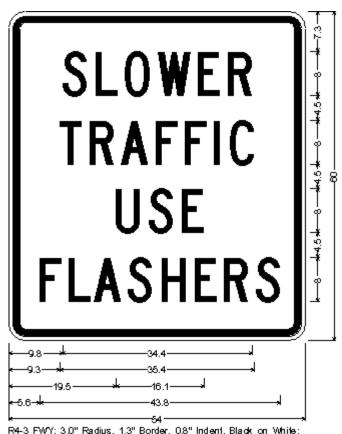
LANES-6" C

4. Symbol/ Pictograph

N/A

5. Arrow

RS4-3: SLOWER TRAFFIC USE FLASHERS



R4-3 FWY; 3.0" Radius, 1.3" Border, 0.8" Indient, Black on White; "SLOWER" C; "TRAFFIC" C; "USE" C; "FLASHERS" C;

				- 1			
5 9.8	L 15.8	0 21.2	₩ 27.2	E 34.5	R 39.9		
T 9.3	R 14.7	A 20.4	F 26.8	F 32.1	l 37.5	С 4 0.3	
U 19.5	5 25.6	E 31.6	3				
F 5.6	L 110	A 15.4	5 21.8	H 27.9	E 33.9	R 39.3	5 45.

Table of letter and object lefts.

1. Colors

Background - White (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

54" X 60" Rectangle

3. Letter Size

SLOWER TRAFFIC USE FLASHERS - 8" C

4. Symbol/ Pictograph

N/A

5. Arrow

WS8-13: WATCH FOR ICE



48.00" across sides 3.75" Radius, 0.75" Border, 0.75" Indent, Black on Yellow; "WATCH" C;

"FOR ICE" C;

Table of letter and object lefts.

W 18.96	A 25.41	T 30.87	c 36.22	н 41.94
F 14.35	0 19.70	R 26.01		
	1 38.39	c 41.20	E 46.92	

1. Colors

Background -Yellow (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

48" x 48" Diamond

3. Letter Size

WATCH FOR ICE - 8" C

4. Symbol/ Pictograph

N/A

5. Arrow

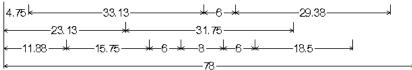
N/A

NOTES

- 1) Hinged at center horizontally
- 2) Use appropriate distance plaque (see MUTCD W16-4)

WS11-3a: FREQUENT WILDLIFE SERIES NEXT XX MILES





1.38" Radius, 0.75" Border, 0.50" Indent, Black on Yellow;

"FREQUENT WILDLIFE" C specified length; "CROSSING" C; "NEXT XX MILES" C; Table of letter and object lefts.

F 4.75	R 8. 7 5	E 13.38	0 17.38	U 22.13	E 26.63	N 30.63	T 34.88			
	₩ 43.88	l 49.38	L 51.50	D 55.50	L 60.13	64. 13	F 66.25	E 70.25		
c 23.13	R 27.3	0 8 31.6	s 36.1	s 13 40.5	l 50 45.0	0 N 47.	G 13 51.6	3		
N 11.88	E 16.3	8 X 20.3	7 8 24.6	3 33.6	3 38.1:	M 3 47.€	1 3 52.79	L 5 54.88	E 58.88	s 62.88

1. Colors

Background -Yellow (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

78" X 36" Rectangle

3. Letter Size

FREQUENT WILDLIFE CROSSING NEXT XX

MILES - 6" C

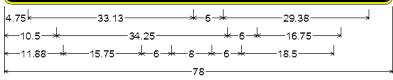
4. Symbol/ Pictograph

N/A

5. Arrow

WS11-3b: FREQUENT WILDLIFE SERIES MIGRATION AREA





1.38" Radius, 0.75" Border, 0.50" Indent, Black on Yellow;

"FREQUENT WILDLIFE" C specified length; "MIGRATION AREA" C;

"NEXT XX MILES" C;

Table of letter and object lefts.

	_	00.		u 00,00							
F	_	R 75	E 42.25	Q 17.20	U 33.43	E 63	N 20.63	7			
4.73	<u>ا (</u>	0.70	13.30	17.30	22.13	20.03	30.63	34.00			
	ſ	W	1.00	L	D	L		F	E		
	Ľ	43.88	3 49.3	ຮ 51.5	U 55.5t	J 6U. 1	3 64. 1	3 66.25	70.25		
М			G	R	A	T	1	0	N		
10.5	50	15.6	3 17.7	'5 22.2	25 26.6	3 30.6	34.6	36.75	41.50		
		A Z	R	E	A	_	•	•	•	,	
	L	50.75	55.5	0 60.1	3 63.75	2					
N		E 16.2	X 20.1	7 74 6	X 22.6	X	M 47.6	 52.75	L F4 66	E 00	S
11.0	-	10.3	0 20.3	00 24.0	33.0	30.	13 47.0	35 52.75	34.00	50.00	02.00

1. Colors

Background -Yellow (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

78" X 36" Rectangle

3. Letter Size

FREQUENT WILDLIFE CROSSING NEXT XX

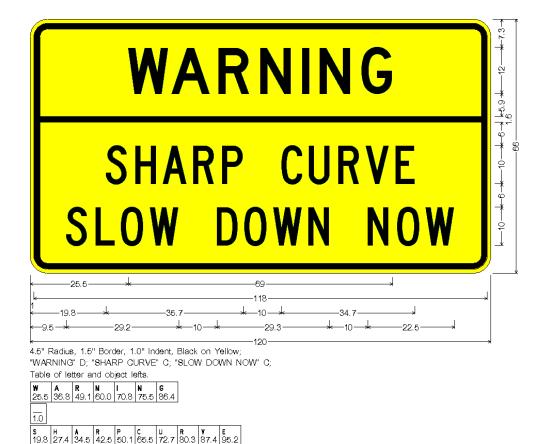
MILES - 6" C

4. Symbol/ Pictograph

N/A

5. Arrow

WS13-5: SHARP CURVE SERIES 120x66



S L 0 V D 0 W N N 0 V 9.5 17.0 23.7 31.2 48.7 55.9 63.3 72.5 88.0 95.6 103.0

1. Colors

Background - Yellow (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

120" X 66" Rectangle

3. Letter Size

WARNING - 12" D

SHARP CURVE SLOW DOWN NOW - 10" C

4. Symbol/ Pictograph

N/A

5. Arrow

WS13-5: SHARP CURVE SERIES 120x78



1. Colors

Background - Yellow (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

120" X 78" Rectangle

3. Letter Size

WARNING - 12" E

SHARP CURVES AHEAD SLOW DOWN NOW - 8" E

4. Symbol/ Pictograph

N/A

5. Arrow

WS13-5: SHARP CURVE SERIES 102x66



4.5" Radius, 1.5" Border, 1.0" Indent, Black on Yellow;

"WARNING" D; "SHARP CURVES" D; "AHEAD" D; "SLOW DOWN NOW" D;

Table of letter and object lefts.

W 28.0	A 35.8	R 43.	N 7 51.0	I 58.:	N 2 61.	6 68.	6			
1.0										
S 9.4	H 16.7	A 23.5	R 31.7	P 39.0	c 52.3	U 59.2	R 66.5	y 73.3	E 80.8	S 87.2
A 33.6	H 41.7	E 49.1	A 54.9	D 63.	1					
S 4.5	L 11.8	0 18.1	W 25.3	D 40.3	0 47.1	W 54.3	N 62.8	N 76.1	0 83.4	W 90.5

1. Colors

Background - Yellow (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

102" X 66" Rectangle

3. Letter Size

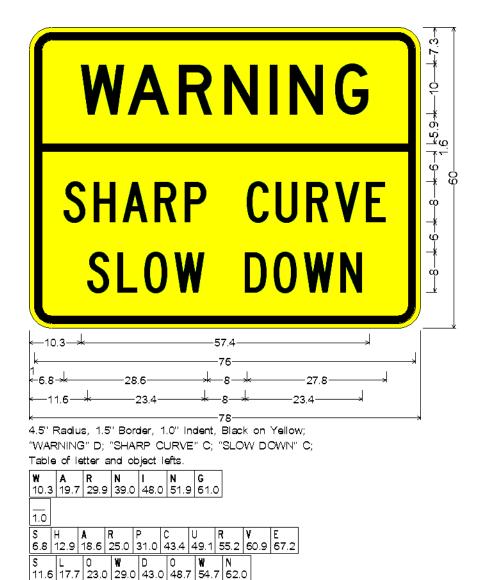
WARNING SHARP CURVES AHEAD SLOW DOWN NOW -8" D

4. Symbol/ Pictograph

N/A

5. Arrow

WS13-5: SHARP CURVE SERIES 78x60



1. Colors

Background - Yellow (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

78" X 60" Rectangle

3. Letter Size

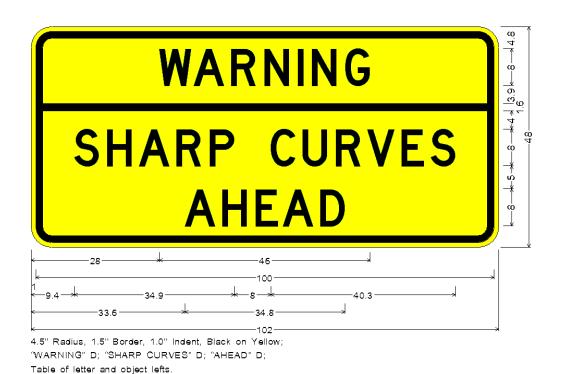
WARNING – 10" D SHARP CURVE SLOW DOWN – 8" C

4. Symbol/ Pictograph

N/A

5. Arrow

WS13-5: SHARP CURVE SERIES 102x48



W A R N I N G 28.0 35.5 43.7 51.0 58.2 61.3 68.6

33.6 41.7 49.0 54.9 63.1

 S
 H
 A
 R
 P
 C
 U
 R
 V
 E
 S

 9.4
 16.7
 23.5
 31.7
 39.0
 52.3
 59.2
 66.5
 73.3
 80.8
 87.2

1.0

1. Colors

Background - Yellow (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

102" X 48" Rectangle

3. Letter Size

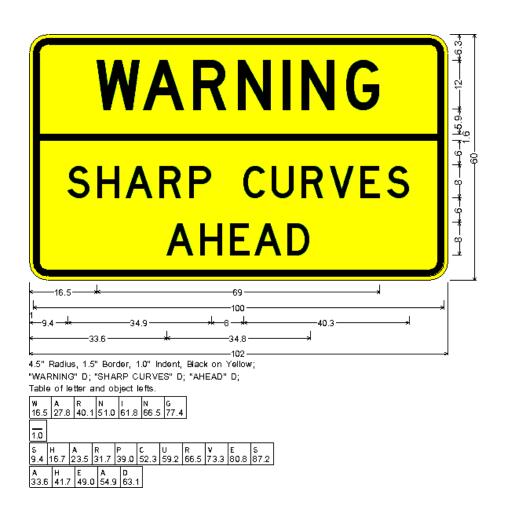
WARNING SHARP CURVES AHEAD-8" D

4. Symbol/ Pictograph

N/A

5. Arrow

WS13-5: SHARP CURVE SERIES 102x60



1. Colors

Background - Yellow (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

102" X 60" Rectangle

3. Letter Size

WARNING – 12" D SHARP CURVES AHEAD – 8" D

4. Symbol/ Pictograph

N/A

5. Arrow

WS13-5: SHARP CURVE SERIES 96x66



 S
 H
 A
 R
 P
 C
 U
 R
 Y
 E

 7.8
 15.4
 22.5
 30.5
 38.1
 53.5
 60.7
 68.3
 75.4
 83.2

\$ L 0 ¥ D 0 W N 13.7 21.3 28.0 35.5 53.0 60.1 67.6 76.8

1. Colors

Background - Yellow (Retroreflective)

Legend - Black

Border - Black

2. Dimension and Shape

96" X 66" Rectangle

3. Letter Size

WARNING – 12" D

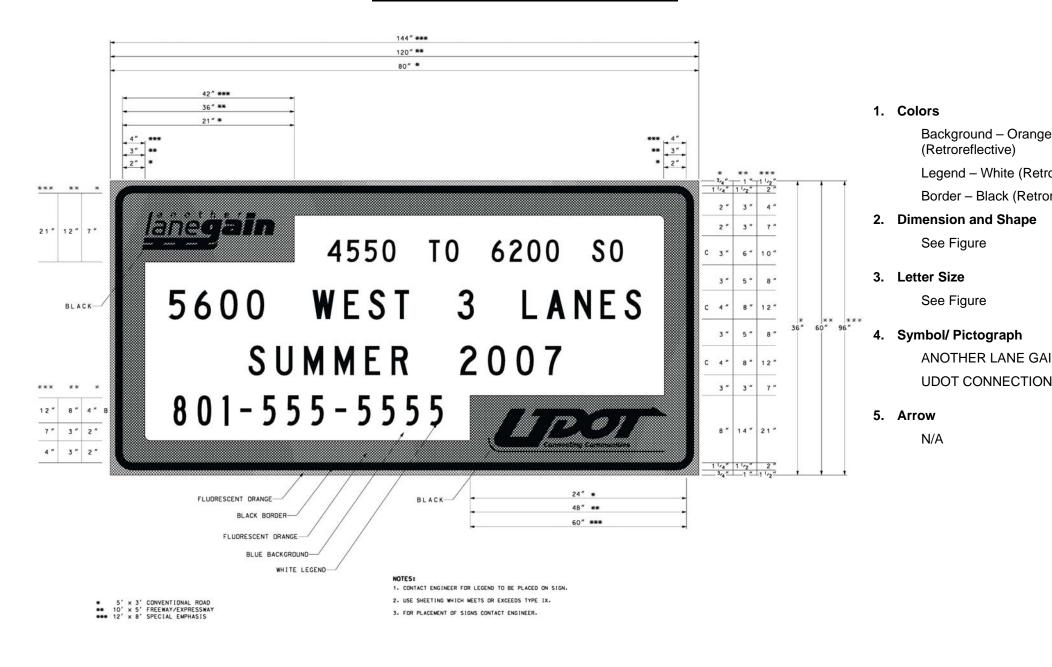
SHARP CURVE SLOW DOWN - 10" C

4. Symbol/ Pictograph

N/A

5. Arrow

GS6-2a: LANE GAIN



GS6-2b: PROJECT NOTIFICATION



1. Colors

Background – Orange & Legend –White (Retrorefle Border –Black (Retrorefle

2. Dimension and Shape

See Figure

3. Letter Size

See Figure

4. Symbol/ Pictograph

UDOT CONNECTION CO

5. Arrow

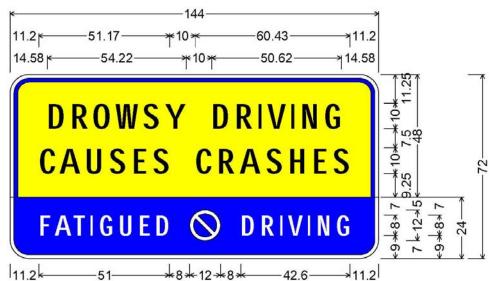
N/A

NOTE

- 1. CONTACT ENGINEER FOR LEGEND TO BE PLACED ON SIGN.
- 2. USE SHEETING WHICH MEETS OR EXCEEDS TYPE IX.
- 3. FOR PLACEMENT OF SIGNS CONTACT ENGINEER.

* 5' x 3' CONVENTIONAL ROAD ** 10' x 5' FREEWAY/EXPRESSWAY *** 12' x 8' SPECIAL EMPHASIS

GS7-4a: DROWSY DRIVING CAUSES CRASHES



1.50" Inner border Blue, 7.50" Radius, 1.50" Outer border, White on Yellow;

"DROWSY DRIVING" Black D;

"CAUSES CRASHES" Black D specified length;

7.50" Radius, 1.50" Border, White on Blue;

"FATIGUED" D specified length;

"DRIVING" D specified length;

Table of letter and object lefts.

D	R	0	W	S	Υ			
14.58	23.64	32.23	41.14	51.76	60.36			
	D 78.80	R 87.86	l 96.92	V 100.36	1 109.73	N 113.6	G 4 122.	70
с 11.20	A 19.19	U 29.45	S 38.55	E 47.65	\$ 55.65			
	C 72.37	R 80.99	A 89.62	\$ 99.88	H 108.98	E 118.08	S 126.0	18
F 11.20	A 17.29	T 24.59	I 31.29	G 34.82	U 42.47	E 50.13	D 56.82	⊚ 70.20
	D	R	1	V	1	N 30 119.8	G	

1. Colors

Top Area

- i. Background Yellow (Retroreflective)
- ii. Legend Black
- iii. Border Black

Bottom Area

- i. Background Blue (Retroreflective)
- ii. Legend White (Retroreflective)
- iii. Border White (Retroreflective)

2. Dimension and Shape

144" X 72" Rectangle

3. Letter Size

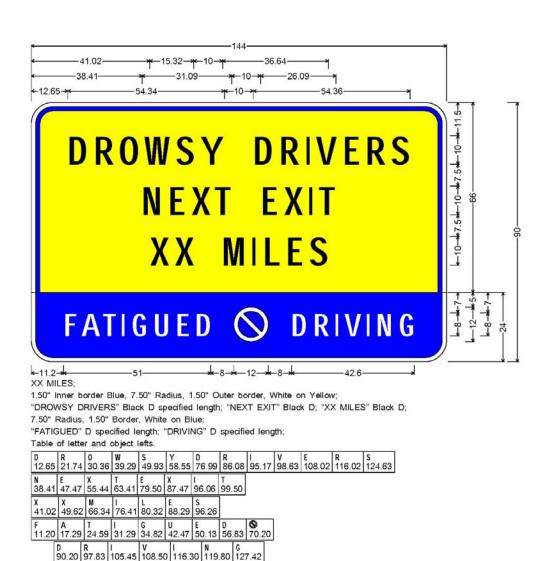
DROWSY DRIVING CAUSES CRASHES – 10" D FATIGUED DRIVING – 8" D

4. Symbol/ Pictograph

International Prohibition Symbol - 12" White (Retroreflective

5. Arrow

GS7-4b: DROWSY DRIVERS NEXT EXIT 15 MILES



1. Colors

Top Area

- Background Yellow (Retroreflective)
- ii. Legend Black
- iii. Border Black

Bottom Area

- i. Background Blue (Retroreflective)
- ii. Legend White (Retroreflective)
- iii. Border White (Retroreflective)

2. Dimension and Shape

144" X 90" Rectangle

3. Letter Size

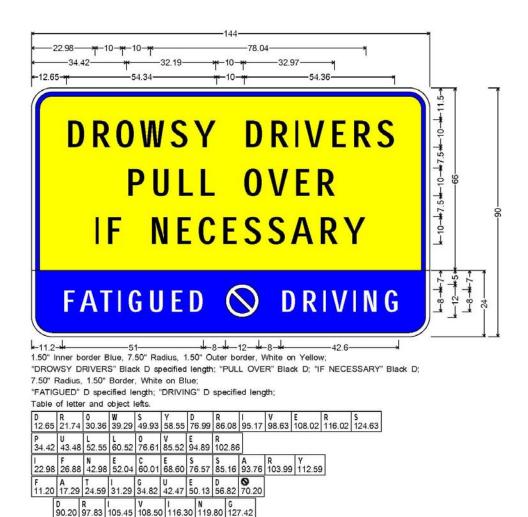
DROWSY DRIVERS NEXT EXIT 15 MILES – 10" D FATIGUED DRIVING – 8" D

4. Symbol/ Pictograph

International Prohibition Symbol – 12" White (Retroreflective)

5. Arrow

GS7-4c: DROWSY DRIVERS PULL OVER IF NECESSARY



1. Colors

Top Area

- i. Background -Yellow (Retroreflective)
- ii. Legend Black
- iii. Border Black

Bottom Area

- i. Background Blue (Retroreflective)
- Legend White (Retroreflective)
- iii. Border White (Retroreflective)

2. Dimension and Shape

144" X 90" Rectangle

3. Letter Size

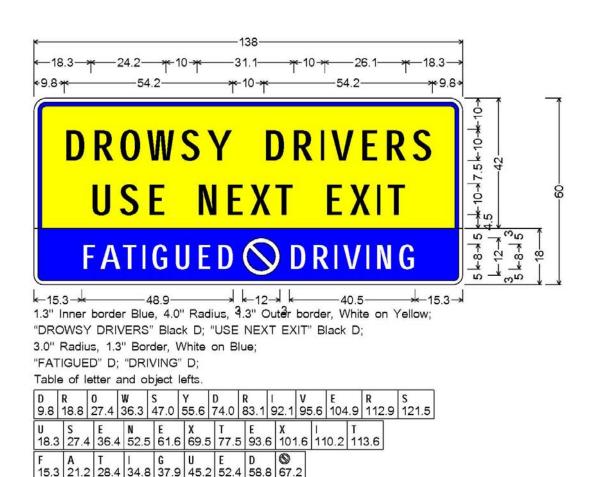
DROWSY DRIVERS PULL OVER IF NECESSARY – 10" D FATIGUED DRIVING – 8" D

4. Symbol/ Pictograph

International Prohibition Symbol – 12" White (Retroreflective)

5. Arrow

GS7-4d: DROWSY DRIVERS USE NEXT EXIT



82.2 89.4 96.7 99.4 106.9 110.0 117.3

1. Colors

Top Area

v. Background – Yellow (Retroreflective)

v. Legend – Black

vi. Border – Black

Bottom Area

i. Background – Blue (Retroreflective)

ii. Legend – White (Retroreflective)

ii. Border – White (Retroreflective)

2. Dimension and Shape

120" X 48" Rectangle

3. Letter Size

DROWSY DRIVERS USE NEXT EXIT- 10" C FATIGUED DRIVING - 8" D

4. Symbol/ Pictograph

International Prohibition Symbol – 12" White (Retroreflective)

5. Arrow

N/A

NOTES

 Sign depicted is for use on freeways/expressways. Sign size shall be 114" X 48" for conventional roads.

GS2D-12: ADOPT-A-HIGHWAY



"ADOPT-A-HIGHWAY" B; Adopt-A-Highway;

"TAKE PRIDE IN UTAH" B;

Table of letter and object lefts.

	D 3.1	0 4.5	P 6.1	7.5	- 8.7	A 9.9	- 11.5	н 12.9	1 14.4	0 15.2	н 16.7	₩ 18.1	я 19.8	Y 21.3
3.0														
I 4.2	А 4.8	К 5.8	E 6.7	P 8.8	R 9.7	10.6	D 11.	1 E 1 12.0	I 14.	H 1 14.5	5			
	U 16	.7	ī 17.5	A 18.2	н 19.:	2								

1. Colors

Background - Blue (Retroreflective)

Legend - White (Retroreflective)

Border - White (Retroreflective)

2. Dimension and Shape

30" X 24" Rectangle

3. Letter Size

ADOPT-A-HIGHWAY – 2.5" B

TAKE PRIDE IN UTAH – 1.5" B

4. Symbol/ Pictograph

ADOPT-A-HIGHWAY – 18"

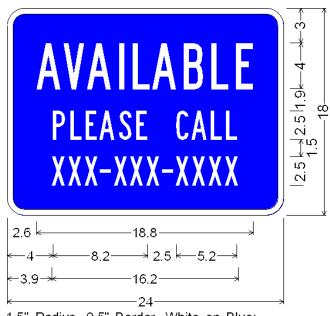
5. Arrow

N/A

NOTES

1) To be used with supplemental GS12-4a or GS12-4b

GS12-4a: AVAILABLE PLEASE CALL



1.5" Radius. 0.5" Border. White on Blue:

"AVAILABLE" B: "PLEASE CALL" B:

"XXX-XXX-XXXX" B specified length:

Table of letter and object lefts.

A 2.6	¥ 4.9	A 6.9	I 9.7	L 10.9	A 12.6	B 15.3	L 3 17.8	E 3 19.9	9		
P 4.0	L 5.5	E 6.8	A 8.0	\$ 9.7	E 11.2						
	t 14	.7 A	6.0	L 17.7	L 19.0						
χ 3.9	χ 5.3	χ 6.7	- 8.0	ў 9.3	χ 10.7	χ 12.1	- 13.4	χ 14.6	χ 16.1	χ 17.5	χ 18.9

1. Colors

Background - Blue (Retroreflective)

Legend – White (Retroreflective)

Border - White (Retroreflective)

2. Dimension and Shape

24" X 18" Rectangle

3. Letter Size

AVAILABLE – 4" B

PLEASE CALL XXX-XXX-XXXX - 2.5" B

4. Symbol/ Pictograph

N/A

5. Arrow

N/A

NOTES

1) To be used with GS12-4

GS12-4b: ADOPT-A-HIGHWAY ENTITY – THREE LINE



1.5" Radius, 0.5" Border, White on Blue;

"NORTH SEVIER HIGH" B:

"SCHOOL NATIONAL" B;

"HONOR SOCIETY" B;

Table of letter and object lefts.

H 0	R 3.5 4	.8 f.0	H 7.0					
	s 9.9	E Y	12.0	13.3 E	13.9	R 14.9		
	н 17.8	I 19.0	្រ 19.6	н 20.8]			
\$ 0 3.4 4	: 4.5 Б	.7 6.9	0 8.1	L 9.4				
	H 12.1	A 13.3	ī 14.4	I 15.5	0 16.1	H 17.4	A 18.5	L 19.9
H 0	.8 7	.1 8.3	R 9.6					
	s 12.4	0 13.6	c 14.8	I 15.9	E 16.5	1 17.5	Y 18.3	

1. Colors

Background - Blue (Retroreflective)

Legend – White (Retroreflective)

Border - White (Retroreflective)

2. Dimension and Shape

24" X 12" Rectangle

3. Letter Size

NORTH SEVIER HIGH SCHOOL NATIONAL HONOR SOCIETY - 2" B

4. Symbol/ Pictograph

N/A

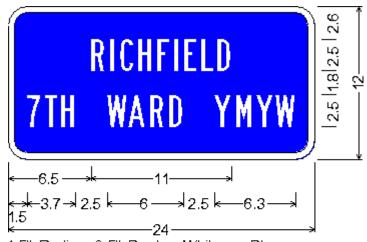
5. Arrow

N/A

NOTES

- 1) To be used with GS12-4
- 2) Use 2.5" max letter height for two lines of text and 2" max letter height for three lines of text

GS12-4c: ADOPT-A-HIGHWAY ENTITY – TWO LINE



1.5" Radius, 0.5" Border, White on Blue; "RICHFIELD" B; "7TH WARD YMYW" B; Table of letter and object lefts.

R 6.5	I 8.0	c 8.8	8	н 10.2	2	F 11.	7	1 13	. 1	E 13.	8	L 15.1	D 16.5
7 1.5	ī 2.9	н 4.2	2	₩ 7.7	Ą	∂.4	R 11	1. 1	0 12	2.7			
	Y 16	.2	M 17	7.9	γ 19	9.5	W 2	1.0					

1. Colors

Background – Blue (Retroreflective) Legend – White (Retroreflective)

Border - White (Retroreflective)

2. Dimension and Shape

24" X 12" Rectangle

3. Letter Size

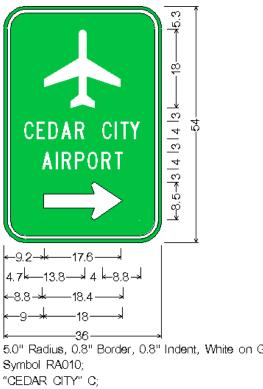
RICHFIELD – 2.5" B 7TH WARD YMYW – 2.5" B

4. Symbol/ Pictograph

N/A

5. Arrow

GS-5: AIRPORT TRAILBLAZER

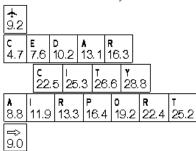


5.0" Radius, 0.8" Border, 0.8" Indent, White on Green;

"AIRPORT" C;

Standard Arrow Custom 18.0" X 8.5" 0°;

Table of letter and object lefts.



1. Colors

Background - Green (Retroreflective)

Legend -White (Retroreflective)

Border -White (Retroreflective)

2. Dimension and Shape

36" X 54" Rectangle

3. Letter Size

CEDAR CITY AIRPORT - 4" C

4. Symbol/ Pictograph

Airport, 18" on center @ 90°, White

5. Arrow

18" x 8.5" on center @ 0°, White

GS2D-8: INTERCHANGE SEQUENCE SIGN



12.0" Radius, 2.0" Border, White on Green:

[&]quot;Leonard" E Mod; "Ave" E Mod; "3/4" E Mod; "1" E Mod specified length; "1/2" E Mod; "Stanger" E Mod; "Rd" E Mod; "2" E Mod; "1/4" E Mod; Table of letter and object lefts

				-1								
L.	•	•	h.	•	r	d	A	٧	•	3	/	4 197.7
						85.7	107.6	123.0	135.6	175.3	186.9	197.7
**	1 165.5	1	1	2	:							
14.1	165.5	182	.7 18	7.6 19	99.3							
5	t	•	h	4		1	R	d	2	1	/	4 197.7
14.1	27.5	37.1	50.7	63.3	75.9	88.6	108.4	122.5	158.0	182.0	186.9	197.7

1. Colors

Background – Green (Retroreflective)

Legend – White (Retroreflective)

Border - White (Retroreflective)

2. Dimension and Shape

222" X 96" Rectangle

3. Letter Size

Leonard Ave 34, 1 1/2, Stanger Rd 2 1/4 - 10" E

4. Symbol/ Pictograph

Interstate 80 – 24" height (Retroreflective)

5. Arrow

DS5-1a: REST STOP ADVANCE SIGN



1. Colors

Background – Blue Legend – White

2. Dimension and Shape

12' X 9' Rectangle

3. Letter Size

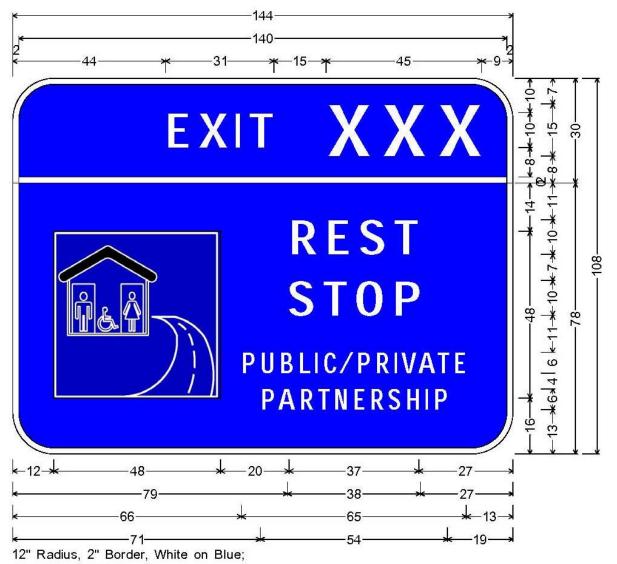
REST STOP, MILES – 10" D
PUBLIC/PRIVATE PARTNERSHIP – 6" D
10 – 15" D

4. Symbol/ Pictograph

Rest Stop 48" X 48"

5. Arrow

DS5-1b: REST STOP SERVICE SIGN EXIT



1. Colors

Background – Blue

Legend - White

2. Dimension and Shape

12' X 9' Rectangle

3. Letter Size

EXIT - 10" E

188 – 15" E

REST STOP - 10" E

PUBLIC/PRIVATE PARTNERSHIP - 6" D

4. Symbol/ Pictograph

Rest Stop 48" X 48"

5. Arrow

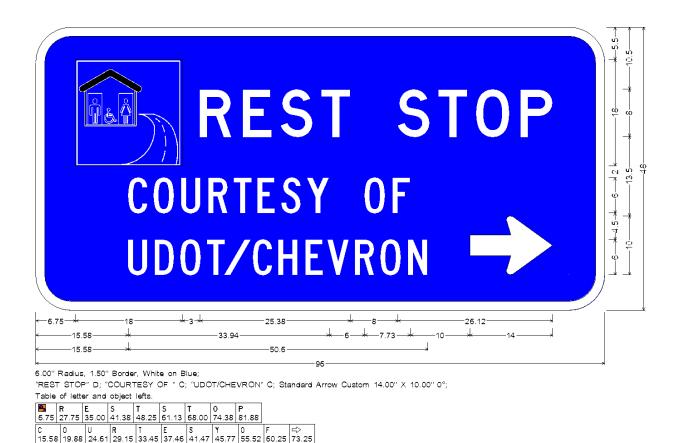
N/A

"EXIT" E; "XXX" E;

12" Radius, 2" Border, White on Blue;

"REST" E; "STOP" E; "PUBLIC/PRIVATE" D; "PARTNERSHIP" D;

DS5-2a: REST STOP SERVICE RAMP TERMINAL



E

1. Colors

Background – Blue Legend – White

2. Dimension and Shape

8' X 4' Rectangle

3. Letter Size

REST STOP, MILES – 8" D
COURTESY OF UDOT/CHEVRON– 6" C

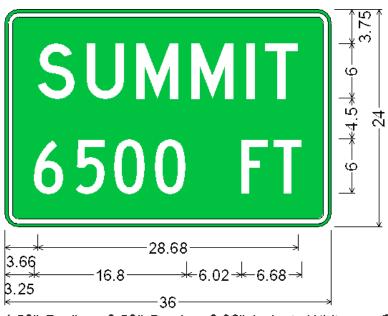
4. Symbol/ Pictograph

Rest Stop 18" X 18"

5. Arrow

14" X 10" @ 0°

GS-3a: SUMMIT OR ELEVATION SIGN



1.50" Radius, 0.50" Border, 0.38" Indent, White on Green; "SUMMIT" D; "6500 FT" C specified length;

Table of letter and object lefts.

s	U	M	M	I	T
3.66	9.09	14.53	20.58	26.63	28.69
6	5	0	0	F	T
3.25	7.80	12.10	16.58	26.07	29.75

1. Colors

Background – Green (Retroreflective)

Legend – White (Retroreflective)

Border - White (Retroreflective)

2. Dimension and Shape

36" X 24" Rectangle

3. Letter Size

SUMMIT - 6" D

6500 FT - 6" C

4. Symbol/ Pictograph

N/A

5. Arrow

N/A

NOTES

- 1) To be used on conventional roads. Refer to GS-3b for freeways/expressways.
- 2) Substitute ELEV for SUMMIT as appropriate
- 3) If the elevation has five digits, sign width is 42"

GS-3b: SUMMIT OR ELEVATION SIGN



1.50" Radius, 0.50" Border, 0.38" Indent, White on Green; "SUMMIT" D; "6500 FT" C;

Table of letter and object lefts.

\$	U	M	M	I	T
4.87	12.12	19.38	27.44	35.50	38.25
6	5	0	0	F	T
4.35	10.41	16.14	22.11	34.74	39.65

1. Colors

Background – Green (Retroreflective)

Legend – White (Retroreflective)

Border - White (Retroreflective)

2. Dimension and Shape

48" X 30" Rectangle

3. Letter Size

SUMMIT - 8" D

6500 FT - 8" C

4. Symbol/ Pictograph

N/A

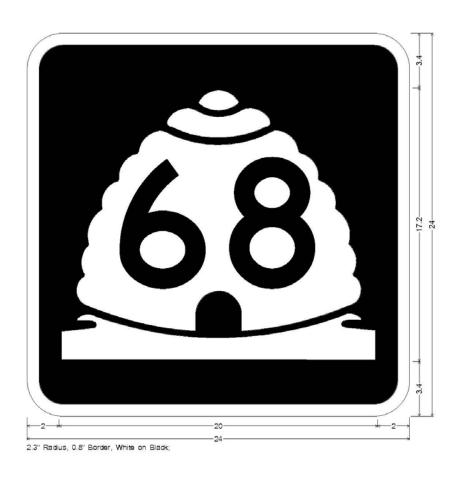
5. Arrow

N/A

NOTES

- To be used on freeways/expressways. Refer to GS-3a for conventional roads.
- 2) Substitute ELEV for SUMMIT as appropriate
- 3) If the elevation has five digits, sign width is 54"

GS1-4a: STATE ROUTE SIGN - TWO DIGIT



1. Colors

Background -Black

Legend - Black

2. Dimension and Shape

24" X 24" Rectangle

3. Letter Size

N/A

4. Symbol/ Pictograph

State Route – 20" White (Retroreflective)

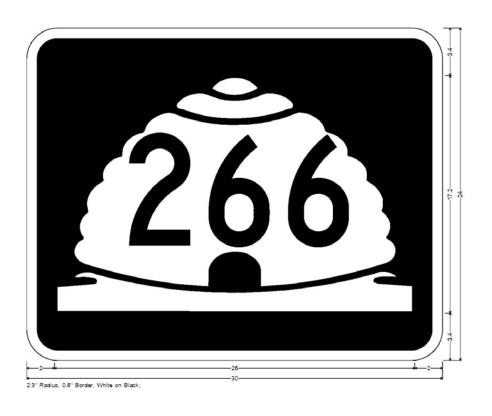
5. Arrow

N/A

NOTES

1) Use 24" X 24" for two digit state routes. Use 30" X 24" for three digit state routes.

GS1-4b: STATE ROUTE SIGN – THREE DIGIT



1. Colors

Background -Black

Legend - Black

2. Dimension and Shape

24" X 24" Rectangle

3. Letter Size

N/A

4. Symbol/ Pictograph

State Route – 20" White (Retroreflective)

5. Arrow

N/A

NOTES

1) Use 24" X 24" for two digit state routes. Use 30" X 24" for three digit state routes.